Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

A389.9
R31

U.S.D.A., NAL
APR 16 2000

Selected References on Cereal Grains in Protein Nutrition

Human and Experimental Animal Studies of Major and Minor Cereals, 1910-1966

ARS 61-5

Agricultural Research Service

U.S. DEPARTMENT OF AGRICULTURE

This compilation of research references on cereal grains in protein nutrition covers most of the classical and contemporary references to human metabolic studies and selected references to animal studies published in English during the years 1910-1966. For each cereal grain, the references are arranged alphabetically by authors under two categories--human studies and experimental animal studies.

The references to animal studies were selected to illustrate potential improvement in nutritional value of cereals when they are properly supplemented with other food sources of protein or with amino acids. References to animal studies were selected also to illustrate the importance of other nutrients on physiological utilization of cereal proteins. In general, studies on the use of cereal grains in animal feeding for the purpose of defining practical livestock rations have been omitted because the rations usually contain crude materials not applicable to human feeding.

The references are being published to facilitate awareness and evaluation of available research data on cereal proteins and to stimulate and guide needed research on cereals in human nutrition.

By

Callie Mae Coons
Agricultural Research Service
United States Department of Agriculture

Washington, D. C. 20250 January 1968

CONTENTS

	Page
WHEAT	
Human Studies	1
Experimental Animal Studies	19
RICE	
Human Studies	53
Experimental Animal Studies	63
CORN	
Human Studies	84
Experimental Animal Studies	93
MILLETS AND SORGHUMS	
Human Studies	113
Experimental Animal Studies	117
OATS	
Human Studies	132
Experimental Animal Studies	134
RYE	
Human Studies	139
Experimental Animal Studies	140
BARLEY	
Human Studies	145
Experimental Animal Studies	145
BUCKWHEAT	
Human Studies	149
Experimental Animal Studies	149

WHEAT

Human Studies

1. Anonymous. Wheat and wheat products as human food. Indian Council Med. Res. Spec. Rpt. Ser., No. 23. 1952.

2. Anonymous. Protein-rich mixture for Middle Eastern Countries. Nutr. Rev. 23: 272-273. 1965.

3. Abderhalden, E., Ewald, G., Fodor, A., and Rose, C. (The minimum requirement of protein in human diets.) Arch. f. d. gesamte Physiologie 160: 511-521. 1914-15.

4. Addison, V.E., Tuttle, W. W., Daum, K., and Larsen, R. Effect of amount and type of protein in breakfasts on blood sugar levels. Jour. Amer. Dietet. Assoc. 29: 674-677. 1953.

5. Adolph, W. H., and Wang, T. C. The digestibility of wheat and millet proteins. Chinese Med. Jour. 48: 59-61. 1934.

6. Albanese, A. A. The effect of lysine-poor diet on the composition of human plasma proteins. Jour. Biol. Chem. 200: 787-792. 1953.

7. Albanese, A. A., Higgons, R. A., Hyde, G. M., and Orto, L. Lysine and tryptophan content of proteins and their utilization for human growth. Amer. Jour. Clin. Nutr. 4: 161-168. 1956.

8. Albanese, A. A., Holt, L. E., Snyderman, S. E., Lein, M., Smetak, E. M., and Vestal, B. Biological value oi wheat and corn proteins in the male infant. (Abstract) Fed. Proc. 8: 179. 1949.

9. Albanese, A. A., Snyderman, S. E., Lein, M., Smetak, E. M., and Vestal, B. The biological value of corn and wheat proteins in the male infant with a note on the utilization of d-tryptophan. Jour. Nutr. 38: 215-224. 1949.

10. Ali, S., Maqsood, S., Alvi, A. S., and Hanif, M. Protein value of wheat flour supplemented with shark meat flour. Pakistan Jour. Sci. Res. 16: 41-43. 1964.

11. Allison, J. B. Amino acid requirements of man. Borden's Rev. of Nutr. Res. 14: 61-79. 1953.

12. Appleton, V. B. Effect of high cereal diets on the growth of infants. Amer. Jour. Dis. Child. 37: 284-295. 1929.

13. Asfour, R. Y., Tannous, R. I., Sabry, Z. I., and Cowan, J. W. Protein-rich food mixtures for feeding infants and young children in the Middle East. II. Preliminary clinical evaluation with Laubina mixtures. Amer. Jour. Clin. Nutr. 17: 148-151. 1965.

14. Barness, L. A., Kaye, R., and Valyasevi, A. Lysine and potassium supplementation of wheat protein. Amer. Jour. Clin. Nutr. 9: 331-344. 1961.

15. Basu, K. P., and Basak, M. N. Studies in human metabolism. I. Protein metabolism. Indian Jour. Med. Res. 27: 115-134. 1939.

16. Basu, K. P , Basak, M. N., and De, H. N. Studies in human nutrition. III. Protein, calcium and phosphorus metabolism with typical Indian dietaries. Indian Jour. Med. Res. 29: 105-117. 1941.

17. Basu, K. P., Basak, M. N., and Sircan, B. C. R. Studies in human metabolism. II. Calcium and phosphorus metabolism in Indians on rice and on wheat diets. Indian Jour. Med. Res. 27: 471-499. 1939.

18. Beattie, J., and Herbert, P. H. Nitrogen balances during recovery from severe undernutrition. Brit. Jour. Nutr. 1: 202-219. 1947.

19. Block, W. D. Excretion of amino acids by patients with psoriasis ingesting two levels of the same protein. Metabolism 15: 46-52. 1966.

20. Bolourchi, S., Friedemann, C., and Mickelsen, O. Wheat as a source of the amino acids for man. (Abstract) Fed. Proc. 23: 874. 1964.

21. Bolourchi, S., Friedemann, C., and Mickelsen, O. Wheat as a source of the amino acids for man. Presented at the Canadian, United States Conference on Nutrition, Toronto, Canada, 1964.

22. Borgstrom, S. Studien uber den Nahrungs physiologischen Wert der Weizenkleiw. Acta Physiol. Scand. 2: 1-128, Sup. 7. 1941.

23. Bressani, R., Wilson, D. L., Behar, M., and Scrimshaw, N. S. Supplementation of cereal proteins with amino acids. III. Effect of amino acids supplementation of wheat flour as measured by nitrogen retention of young children. Jour. Nutr. 70: 176-186. 1960.

24. Bressani, R., Wilson, D. L., Chung, M., Behar, M., and Scrimshaw, N. S. Supplementation of cereal proteins with amino acids. IV. Lysine supplementation of wheat flour fed to young children at different levels of protein intake in presence and absence of other amino acids. Jour. Nutr. 79: 333-339. 1963.

25. Bricker, M. S., Mitchell, H. H., and Kinsman, G. M. The protein requirement of adult human subjects in terms of protein contained in various foods and food combinations. Jour. Nutr. 30: 269-283. 1945.

26. Bronner, F., and Harris, R. F. Studies in calcium metabolism. Effect of food phytates on Ca^{45} uptake in children on low-calcium breakfasts. Jour. Nutr. 54: 523-542. 1954.

27. Bryant, K., Martin, C., Schumacher, M. T., Daum, K., and Tuttle, W. W. Effect of aging and various types of breakfasts on the blood sugar level. Jour. Amer. Dietet. Assoc. 28: 17-22. 1952.

28. Burton, H. B. The influence of cereals upon the retention of calcium and phosphorus in children and adults. Jour. Biol. Chem. 85: 405-419. 1930.

29. Clark, H. E. Utilization of essential amino acids by man. In Newer Methods of Nutritional Biochemistry, Vol. 2, Chapter 14, pp. 123-159. 1965. (92 references) Academic Press.

30. Clark, H. E., Allen, P., MacDonald, S., Meyers, S., and Yamura, Y. Effect of increments of all EAA on nitrogen retention of men. (Abstract) Fed. Proc. 25: 300. 1966.

31. Clark, H. E., Howe, J. M., Mertz, E. T., and Reitz, L. L. Lysine in baking powder biscuits. Jour. Amer. Dietet. Assoc. 35: 469-471. 1959.

32. Clark, H. E., Kenny, M. A., Goodwin, A. F., Goyal, K., and Mertz, E. T. Effect of certain factors on nitrogen retention and lysine requirements of adult human subjects. IV. Total nitrogen intake. Jour. Nutr. 81: 223-229. 1963.

33. Clark, H. E., Mertz, E. T., Kwong, E. H., Howe, J. M., and De Long, D. C. Amino acid requirement of men and women. I. Lysine. Jour. Nutr. 62: 71-84. 1957.

34. Clark, H. E., Myers, P., Goyal, K., and Rinehart, J. Influence of variable quantities of lysine, tryptophan and isoleucine on nitrogen retention of adult human subjects. Amer. Jour. Clin. Nutr. 18: 91-99. 1966.

35. Clark, H. E., Reitz, L. L., Bacharatayan, T. S., and Mertz, E. T. Effect of certain factors on nitrogen retention and lysine requirements of adult human subjects. II. Interval within experiment when dietary lysine and nitrogen were constant. Jour. Nutr. 78: 173-178. 1962.

36. Clark, H. E., and Woodward, L. Influence of variable quantities of methionine on the nitrogen retention of adult human subjects. Amer. Jour. Clin. Nutr. 18: 100-104. 1966.

37. Clark, H. E , Yang, S. P., Reitz, L. L., and Mertz, E. T. The effect of certain factors on nitrogen retention and lysine requirement of adult human subjects. I. Total caloric intake. Jour. Nutr. 72: 87-92. 1960.

38. Clark, H. E., Yang, S. P., Walton, W., and Mertz, E. T. Amino acid requirements of men and women. II. Relation of lysine requirements to sex, body size, basal caloric expenditure and creatinine excretion. Jour. Nutr. 71: 229-234. 1960.

39. Clark, H. E., Yess, N. J., Vermillion, E. J., Godwin, A. F., and Mertz, E. T. Effect of certain factors on the nitrogen retention and lysine requirements of adult human subjects. III. Source of supplementary nitrogen. Jour. Nutr. 79: 131-139. 1963.

40. Clark, L. C., Ryer, H. E., and Murlin, J. R. Relative to egg biological values and replacement values of some cereal proteins in human subjects. Jour. Nutr. 38: 405-420. 1949.

41. Coleman, M. C., Tuttle, W. W., and Daum, K. Effect of protein source on maintaining blood sugar levels after breakfast. Jour. Amer. Dietet. Assoc. 29: 239-244. 1953.

42. Crampton, E. W., Irwin, M. I., Lloyd, L. E., and Neilson, H. R. The apparent digestibility of essentially similar diets by rats, guinea pigs, sheep, swine and by human subjects. Jour. Nutr. 43: 541-550. 1951.

43. Crampton, E. W., and Rutherford, B. E. Apparent digestibility of dietary protein as a function of protein level. Jour. Nutr. 54: 445-451. 1954.

44. Cremer, H. D., Lang, K., Hubbe, I., and Kulik, U. (Improvement of the biological values of wheat protein with lysine or yeast and a comparison with oat protein.) Biochem. Ztschr. 322: 58-67. 1951.

45. Cuthbertson, D.P ., and Munro, H. N. The relationship of carbohydrate metabolism to protein metabolism. I. The roles of total dietary carbohydrate and of surfeit carbohydrate in protein metabolism. Biochem. Jour. 33: 128-142. 1939.

46. Daum, K., Tuttle, W. W., Larsen, R., Roloff, L., and Salzano, J. Physiologic response of boys 12 to 14 years old to different breakfasts. Jour. Amer. Dietet. Assoc. 31: 359-362. 1955.

47. Dean, R. F. A. Plant proteins in child feeding. Med. Res. Council Spec. Rpt. Ser. No. 279, 163 pp. (London). 1963.

48. Doraiswamy, T. R., Bains, G. S., Bhaganan, R. K , Sankaran, A. N., Bhatia, D. S., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Studies on enriched tapioca macaroni products. VI. Supplementary value to the diet of school children. Food Sci. (Mysore) 10: 393-397. 1961.

49. Doraiswamy, T. R., Bhaganan, R. K., Bains, G. S., Sankaran, A. N., Bhatia, D. S., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Studies on enriched tapioca macaroni products. V. Supplementary value to the diet of weaned infants and young children. Food Sc. (Mysore) 10: 389-393. 1961.

50. Doraiswamy, T. R., Joseph, K., Panemangalore, M., Sankaran, A. N., Rajagopalan, R., Swaminathan, M., Sreenivasan, S., and Subrahmanyan, V. Effect of supplementing high protein food on poor Indian diet based on wheat. Food Sci. (Mysore) 11: 211-214. 1962.

51. Downs, E. F. Nutritional dwarfing. A syndrome of early protein-calorie malnutrition. Amer. Jour. Clin. Nutr. 15: 275-281. 1964.

52. Edwards, C. H., Booker, L. K., Rumph, C. H., and Ganapathy, S. N. Nitrogen metabolism of young men receiving diets containing wheat and wheat supplemented with pinto beans, rice, or peanut butter. (Abstract) Cereal Sci. Today 11: 154. 1966.

53. Edwards, C. H., Rumph, C. H., Booker, L. K., and Ganapathy, S. N. Effects of diets containing wheat and wheat supplemented with pinto beans, rice, or peanut butter on plasma lipids in young men. (Abstract) Fed. Proc. 25: 607. 1966.

54. Flodin, N. W. Amino acids and proteins, their place in human nutrition problems. Agr. Food Chem. 1: 222-235. 1953.

55. French, R. B., and Matill, H. A. The biological value of the proteins of whole wheat and rye breads. Cereal Chem. 12: 365-371. 1935.

56. Ganapathy, S. N., Booker, L. K., Rumph, C. H., and Edwards, C. H. Plasma amino acid content of young men receiving diets containing wheat and wheat supplemented with pinto beans, rice or peanut butter. (Abstract) VII Internatl. Cong. Nutr., Hamburg, pp. 178-179. 1966.

57. Glatzel, Von H., and Rettenmaier, G. Comparison of different breads in the physiology of nutrition. VI. Blood sugar levels and satiation. Nutr. et Dieta. 6: 3-20. 1964.

58. Glatzel, Von H., and Rettenmaier, G. Comparison of various breads in the physiology of nutrition. VII. The course of nutritional hyperglycaemia after crust and crumb. Nutr. et Dieta. 7: 51-61. 1965.

59. Goldsmith, G. A., Rosenthal, H. L., Gibbens, J., and Unglaub, W. G. Studies of niacin requirement in man. II. Requirement on wheat and corn diets low in tryptophan. Jour. Nutr. 56: 371-386. 1955.

60. Goldsmith, G. A., Rosenthal, H. L., and Unglaub, W. G. Niacin requirements on "corn" and "wheat" diets low in tryptophan. (Abstract) Fed. Proc. 12: 415. 1953.

61. Gopalan, C., and Narasinga Rao, B. S. Effect of protein depletion on urinary nitrogen excretion in undernourished subjects. Jour. Nutr. 90: 213-218. 1966.

62. Goyal, K. Nitrogen retention by human subjects who consumed diets containing wheat flour and nonfat dry milk. Indian Jour. Home Sci. 1: 1-2. 1966.

63. Goyal, K., and Clark, H. E. Nitrogen retention of adult human subjects on a diet containing whole wheat flour and nonfat dry milk. Jour. Nutr. and Dietet. (India) 1: 288-292. 1964.

64. Graham, G. G., Baertl, J. M., and Cordano, A. Dietary protein quality in infants and children. I. Evaluation in rapidly growing infants and children of fish protein concentrate alone and in combination with wheat. Amer. Jour. Dis. Child. 110: 248-257. 1965.

65. Graham, G. G., Baertl, J. M., and Cordano, A. Studies in infantile malnutrition. V. The effect of dietary protein source on serum proteins. Amer. Jour. Clin. Nutr. 18: 16-19. 1966.

66. Graham, G. G., Cordano, A., and Baertl, J. M. Studies in infant malnutrition. II. The effect of protein and calorie intake on weight gain. Jour. Nutr. 81: 249-254. 1963.

67. Graham, G. G., Cordano, A., and Baertl, J. M. Studies in infant malnutrition. III. Effect of protein and calorie intake on nitrogen retention. Jour. Nutr. 84: 71-76. 1964.

68. Graham, G. G., Cordano, A., and Baertle, J. M. Studies in infantile malnutrition. IV. The effect of protein and calorie intake on serum proteins. Amer. Jour. Clin. Nutr. 18: 11-15. 1966.

69. Graham, G. G., and Morales, E. Studies in infant malnutrition. I. Nature of the problem in Peru. Jour. Nutr. 79: 479-487. 1963.

70. Grande, F., Anderson, J. T., and Keys, A. Effects of carbohydrates of leguminous seeds, wheat and potatoes on serum cholesterol concentration in man. Jour. Nutr. 86: 313-318. 1965.

71. Guggenheim, K. The nutritional siginficance of bread in Israel. Harefuah 63: 245. 1962.

72. Guggenheim, K., Perez, E., Ilan, J., Joseph, S., and Goldberg, A. The nutritive value of proteins of human diets as affected by extraction rate of flour and its supplementation with soya meal. Amer. Jour. Clin. Nutr. 10: 231-239. 1962.

73. Harte, R. A., and Travers, J. J. Human amino acid requirements. Science 105: 15-16. 1947.

74. Hawley, E. E., Murlin, J. R., Nasset, E. S., and Szymanski, T. A. Biological values of six partially-purified proteins. Jour. Nutr. 36: 135-169. 1948.

75. Hegsted, D. M., Kent, V., Tsongas, A. G., and Stare, F. J. A comparison of the nutritive value of the proteins in mixed diets for dogs, rats and human beings. Jour. Lab. Clin. Med. 32: 403-409. 1947.

76. Hegsted, D. M., Trulson, M. F., and Stare, F. J. Role of wheat and wheat products in human nutrition. Physiol. Rev. 34: 221-258. 1954.

77. Hegsted, D. M., Trulson, M. F., White, H. S., and White, P. L. Lysine and methionine and supplementation of all-vegetable diets for human adults. Jour. Nutr. 56: 555-576. 1956.

78. Hegsted, D. M., Tsongas, A. G., Abbot, D. B., and Stare, F. J. Protein requirements of adults. Jour. Lab. Clin. Med. 31: 261-284. 1946.

79. Hindhede, M. Untersuchungen uber den Einfluss Eininger Nahrungsmittel auf die Loslichkeit der Harn Saure. Skand. Arch. Physiol. 27: 87-99. 1912.

80. Hindhede, M. Untersuchungen uber die Verdaulichkeit einiger Brotsorten. Skand. Arch. Physiol. 28: 165-188. 1913.

81. Hindhede, M. (The protein minimum on a bread diet.) Skand. Arch. Physiol. 31: 259-320. 1914.

82. Hindhede, M. Das danische Rationierungsexperiment. Skand. Arch. Physiol. 47: 102-120. 1925.

83. Hindhede, M. The biological value of bread protein. Biochem. Jour. 20: 330-334. 1926.

84. Hoffman, W. S., and McNeil, G. C. Enhancement of the nutritive value of wheat gluten by supplementation with lysine, as determined from nitrogen balance indices in human subjects. Jour. Nutr. 38: 331-343. 1949.

85. Hughes, B. P. The intakes of essential amino acids of children who were deriving most of their protein from bread and vegetables. Brit. Jour. Nutr. 9: 373-378. 1955.

86. Joseph, K., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. IV. The effect of replacing rice in the diet by tapioca macaroni on the metabolism of nitrogen, calcium, and phosphorus. Brit. Jour. Nutr. 12: 429-432. 1958.

87. Karambelkar, P. V., Patwardhan, V. N., and Sreenivasan, A. Studies in protein metabolism. Further observations on the influence of dietary protein on urinary excretion. Indian Jour. Med. Res. 38: 241-254. 1950.

88. Karambelkar, P. V., Patwardhan, V. N., and Sreenivasan, A. Studies in protein metabolism. Creatinine excretion in urine in relation to sources of dietary protein. Indian Jour. Med. Res. 40: 89-93. 1952.

89. Kaye, R., Barness, L. A., Valyasevi, A., and Knapp, J. Nitrogen balance studies of plant proteins in infants. In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 297-312. 1961.

90. King, K. W., Sebrell, W. H., Jr., Severinghaus, E. L., and Storvick, W. O. Lysine fortification of wheat bread fed to Haitian school children. Amer. Jour. Clin. Nutr. 12: 36-48. 1963.

91. Knapp, J. A., Hill, L. L., Kaye, R., Barness, L. A., and Blartner, R. J. Nutritive value of plant proteins in infants. (Abstract) VII Internatl. Cong. Nutr., Hamburg, p. 246. 1966.

92. Kodicek, E. Bread as human food. Proc. Nutr. Soc. 4: 22-23. 1946.

93. Krut, L. H. Controlled field trial for a bread supplemented with lysine on children in an institution. Proc. Nutr. Soc. So. Africa 1: 38. 1960.

94. Krut, L. H., Hansen, J. D. L., Truswell, A. S., Schendel, H. E., and Brock, J. F. Controlled field trials of a bread diet supplemented with lysine for children in an institution. So. Africa Jour. Lab. Clin. Med. 7: 1. 1961.

95. Kuether, C. A., and Myers, V. C. The nutritive value of cereal proteins in human subjects. Jour. Nutr. 35: 651-667. 1948.

96. Kung, L. C., and Yeh, H. L. Nitrogen, calcium and phosphorus balances of rural adolescent boys on low-cost diets. Chinese Jour. Physiol. 13: 285-306. 1938.

97. Kurien, P. P., Rao, S. V., Doraiswamy, T. R., Rajagopalan, R., Swaminathan, M., and Subrahmanyan, V. The effect of replacing wheat in a poor Indian diet by a blend of whole wheat flour, tapioca flour and low-fat groundnut flour on the metabolism of nitrogen, calcium and phosphorus in children. Ann. Biochem. Expt. Med. 21: 13-16. 1961.

98. Lauter, S., and Jenke, M. (The biological valence of meat, potato and wheat flour.) Deutsch. Arch. Klin. Med. 146: 173-186. 1925.

99. Lepkovsky, S. Bread problems in war and in peace. Physiol Rev. 24: 239-276. 1944.

100. Levine, R. A., Briggs, G. W., Harding, R. S., and Nolte, L. B. Prolonged gluten administration in normal subjects. New England Jour. Med. 274: 1109-1114. 1966.

101. Lintzel, W. Von. (The quantity and quality of dietary protein for human subjects.) Deutsche Med. Wochenschrift. 80: 1047-1051. 1955.

102. Lintzel, W. Von, and Bertram, W. (Experimental studies on protein metabolism. II. The biological value of milk proteins in human adults.) Biochem. Zeit. 297: 315-323. 1938.

103. Lintzel, W. Von, and Rechenberger, J. (Protein maintenance and recovery.) Deutsch. Z. f. Verdaunngs u. Stoffwedi. 12: 31-43. 1952.

104. Longenecker, J. B., and Hause, N. L. Relationship between plasma amino acids and composition of the ingested protein. II. A shortened procedure to determine plasma amino acid (PAA) ratios. Amer. Jour. Clin. Nutr. 9: 356-362. 1961.

105. Lusk, G. A history of metabolism. Endocrinol. and Metabol. 3: 3-78. 1922.

106. McCance, R. A., and Walsham, C. M. The digestibility and absorption of the calories, proteins, purines, fat and calcium in whole meal wheaten bread. Brit. Jour. Nutr. 2: 26-41. 1948.

107. McCance, R. A., and Widdowson, E. M. Mineral metabolism of healthy adults on white and brown bread dietaries. Jour. Physiol. 101: 44-85. 1943.

108. McCance, R. A., and Widdowson, E. M. An experimental study of rationing. Med. Res. Council, Brit. Spec. Rpt. Ser. No. 254, pp. 1-61. 1946.

109. McCance, R. A., and Widdowson, E. M. Digestibility of English and Canadian wheats with special reference to the digestibility of wheat protein by man. Jour. Hyg. 45: 59-64. 1947.

110. McCance, R. A., Widdowson, E. M., and Lehmann, H. The effect of protein intake on the absorption of calcium and magnesium. Biochem. Jour. 36: 686-691. 1942.

111. McLaren, D. S. Further development of "Laubina" mixtures in the Middle East. (Abstract) VII Internatl. Cong. Nutr. Hamburg, p. 78. 1966.

112. Macrae, T. F., Hutchinson, J. C. D., Irwin, J. O., Bacon, J. S. D., and McDougall, E. J. Comparative digestibility of whole meal and white breads and the effect of the degree of fineness of grinding on the former. Jour. Hyg. 42: 423-435. 1942.

113. Martin, C. J., and Robison, R. The minimum nitrogen expenditure of man and the biological value of various proteins for human nutrition. Biochem. Jour. 16: 407-447. 1922.

114. Mauron, J., Motta, F., and Egli, R. H. (Nutritional problems underlying protein malnutrition in the developing countries. I. Loss of amino acids in the preparation of biscuits rich in protein.) Ann. Nutr. et Aliment. 14: 135-150. 1960.

115. Mickelsen, O., Bolourchi, S., and Friedemann, C. The value of wheat as food for man. In Fourth National Conference on Wheat Utilization Research, U.S. Agr. Res. ARS 74-35, p. 46. Western Regional Laboratory, Albany, Calif. 1966.

116. Mitra, K., Verma, S. K., and Ahmed, S. Investigation on biological value of cereal mixture in a rice eater's diet by human feeding trials. Indian Jour. Med. Res. 36: 261-270. 1948.

117. Morgan, A. F., and Heinz, A. M. Biological values of wheat and almond nitrogen. Jour. Biol. Chem. 37: 215-222. 1919.

118. Murlin, J. R., Edwards, L. E., Hawley, E. E., and Clark, L. C. Biological value of proteins in relation to the essential amino acids they contain. I. The endogenous nitrogen of man. Jour. Nutr. 31: 533-554. 1946.

119. Murlin, J. R., Marshall, M. E., and Kochakian, C. D. Digestibility and biological value of whole wheat breads compared with white bread. Jour. Nutr. 22: 573-588. 1941.

120. Murlin, J R., and Mattill, H. A. Digestibility and nutritional value of cereal proteins in the human subject Jour. Nutr. 16: 15-35. 1938.

121. Murlin, J. R., Mattill, H. A., and Austin, E. M. The biological value of cereal proteins in human nutrition. Proc. Soc. Expt. Biol. Med. 23: 282-283. 1926.

122. Murlin, J. R., Nasset, E. S., and Marsh, M. E. Egg replacement value of proteins of cereal breakfast foods with a consideration of heat injury. Jour. Nutr. 16: 249-269. 1938.

123. Murlin, J. R., Szymanski, T. A., and Nasset, E. S. Creatine nitrogen percentage as a check or the biological values of proteins. Jour. Nutr. 36: 171-175. 1948.

124. Nasset, E. S., and Tully, R. H. III. Urinary excretion of essential amino acids by human subjects fed diets containing proteins of different biological value. Jour. Nutr. 44: 477-485. 1951.

125. Newman, L. F., Robinson, G. W., Holmes, E. T., and Neville, H. A. D. Some experiments on the relative digestibility of white and whole meal breads. Jour. Hyg. 12: 119-143. 1912.

126. Nitsan, Z., Bolourchi, S., and Michelsen, O. Blood urea levels as influenced by the type of dietary protein. (Abstract) Fed. Proc. 25: 299. 1966.

127. Panemangalore, M., Parthasarathi, H. N., and others. Effect of supplementary high protein food on retention of nitrogen, calcium and phosphorus in children subsisting on a poor wheat diet. Food Sci. (Mysore) 11: 214-217. 1962.

128. Parpia, H. A. B. Development of food mixes for preschool children in India. In Preschool Child Malnutrition, Primary Deterrent to Human Progress. Natl. Acad. Sci.-Natl. Res. Council Pub. 1282, Chapter 18, pp. 181-212. 1966.

129. Patwardhan, V. N. Protein element in Indian nutrition. Indian Jour. Med. Sci. 10: 1-18. 1956.

130. Patwardhan, V. N. Utilization of vegetable and animal protein in human subjects. Some obscure aspects. In Progress in Meeting Protein Needs of Infants and Preschool Children. Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 393-405. 1961.

131. Patwardhan, V. N. Nutritive value of cereal and pulse proteins. In Meeting protein needs of infants and children. Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 201-210. 1961.

132. Patwardhan, V. N., Mukundan, R., Rama Sastri, B. V., and Tupule, P. G. Studies in protein metabolism. The influence of the dietary protein on the urinary nitrogen excretion. Indian Jour. Med. Res. 37: 327-345. 1949.

133. Phansalkar, S. V., and Patwardhan, V. N. Partition of urinary nitrogen in Indian adults. Relation between urea nitrogen and total nitrogen. Indian Jour. Med. Res. 42: 363-371. 1954.

134. Phansalkar, S. V., and Patwardhan, V. N. Utilization of animal and vegetable proteins. Urinary nitrogen excretion in absorptive and early post absorptive phases. Indian Jour. Med. Res. 43: 265-276. 1955.

135. Phansalkar, S. V., and Patwardhan, V. N. Utilization of animal and vegetable proteins. Nitrogen balances at marginal protein intakes and the determination of minimum protein requirements for maintenance in young Indian men. Indian Jour. Med. Res. 44: 1-10. 1955.

136. Porter-Levin, T. Calcium and phosphorus metabolism of normal preschool children. I. On diets containing plain and irradiated cereals. Jour. Amer. Dietet. Assoc. 8: 482-488. 1933.

137. Porter-Levin, T. Calcium and phosphorus metabolism of normal preschool children. II. Successive balance studies showing the range of variation in calcium and phosphorus storage. Jour. Amer. Dietet. Assoc. 9: 22-35. 1933.

138. Porter-Levin, T. Metabolism of normal preschool children. III. Variations in nitrogen storage on constant diets. Jour. Amer. Dietet. Assoc. 15: 427-434. 1939.

139. Ramamurti, K. Studies on the nitrogen partition in the urine of Rajasthanis. Indian Jour. Med. Res. 43: 61-69. 1955.

140. Reddy, S. K., Sur, G., Doraiswamy, T. R., Sankaran, A. M., Swaminathan, M., and Subrahmanyan, V. Effect of supplementary composite protein foods on the growth and nutritional status of school children. Indian Jour. Physiol. Allied Sci. 8: 26-33. 1954.

141. Rao, S. V., Swaminathan, M., and Parpia, H. A. B. Mutual supplementation of dietary proteins for meeting protein needs and overcoming protein shortage in developing countries. Jour. Nutr. and Dietet. (India) 1: 128-138. 1964.

142. Rose, M. S., and MacLeod, G. Maintenance values for the proteins of milk, meat, bread and milk, and soybean curd. Jour. Biol. Chem. 66: 847-867. 1925.

143. Rose, M. S., MacLeod, G., and Bisbey, B. Maintenance values for the proteins of milk, bread and milk, meat and soybean curd in human nutrition. Proc. Soc. Expt. Biol. Med. 21: 143-144. 1923.

144. Rose, M. S. Valteich, E. McC., and MacLeod, G. Factors in food influencing hemoglobin regeneration. III. Eggs in comparison with whole wheat, prepared bran, oatmeal, beef liver, beef muscle. Jour. Biol. Chem. 104: 217-229. 1934.

145. Rubner, M. Die Verdaulichkeit von Weizenbrot. Arch. F. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1916: 61-92. 1917.

146. Rubner, M. Uber die Zusammensetzung und Verdaulichkeit der Keime einiger Zerealien. Arch. f. Anat. u. Physiol-Physiol. Abtlg. Jahr. 1916: 123-131. 1917.

147. Rubner, M. Die Verwertung von Keimlingen der Zerealien fur die menschliche Ernahrung. Arch. f. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1916: 351-359. 1917.

148. Rubner, M. Die Verdaulichkeit der Vegetabilien. Arch. f. Anat. u. Physiol-Physiol. Abtlg. Jahr. 1918: 53. 1919.

149. Rubner, M. Uber die Verdaulichkeit van Nahrungsgemischen. Arch. f. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1918: 135. 1919.

150. Rubner, M. Die grosse des N-Verbrauches bei einigen vegetabilischen Nahrungsmitteln. Arch. f. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1919: 81-123. 1920.

151. Rubner, M. Hindhede's Unterscuhungen uber Eiweissminimum bei Brotkost. Arch. f. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1919: 124-142. 1920.

152. Rubner, M., and Kohlrausch, A. Die Verdaulichkeit des Spelzmehles beim Menschen. Arch. f. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1916: 101-122. 1917.

153. Sabry, Z. I., Asfour, R. R., Cowan, J. W., and Tannous, R. I. The development of wheat-based protein food mixture for infant feeding in the Middle East. (Abstract) Fed. Proc. 23: 878. 1964.

154. Sealock, R. R., Basinski, D. H., and Murlin, J. R. Apparent digestibility of carbohydrates, fats and "indigestible" residue in whole wheat and white breads. Jour. Nutr. 22: 589-596. 1941.

155. Sebrell, W. H. J. The role of the bread-cereal group in the well-balanced diet. Borden's Rev. Nutr. Res. 27: 1-25. 1966.

156. Sebrell, W. H., King, K. W., Severinghaus, E. L., Fougere, W., Deliva, H., Bernadotte, J., and Storvick, M. O. Effect of feeding bread with and without lysine on rural Haitian school children. (Abstract) V Internatl. Cong. Nutr., p. 59. 1960.

157. Senecal, J. The treatment and prevention of kwashiorkor in French West Africa. Ann. N. Y. Acad. Sci. 69: 916-953. 1958.

158. Sherman, H. C. The protein requirement of maintenance in man. Proc. Natl. Acad. Sci. 6: 38-40. 1920.

159. Sherman, H. C., Gillet, L. H., and Osterberg, E. Protein requirement of maintenance in man and the nutritive efficiency of bread protein. Jour. Biol. Chem. 41: 97-109. 1920.

160. Sherman, H. C., Gillett, L. H., and Pope, H. M. Monthly metabolism of nitrogen, phosphorus, and calcium in healthy women. Jour. Biol. Chem. 34: 373-381. 1918.

161. Sherman, H. C., Wheeler, L., and Yates, A. B. Experiments on the nutritive value of maize protein and on the phosphorus and calcium requirements of healthy women. Jour. Biol. Chem. 34: 383-393. 1918.

162. Shourie, K. L., and Singh, N. A diet survey of a group of Sikh soldiers. Indian Jour. Med. Res. 25: 655-660. 1938.

163. Srikantia, S. G., and Gopalan, C. Clinical trials with vegetable protein foods in kwashiorkor. Indian Jour. Med. Res. 48: 637-644. 1960.

164. Srikantia, S. G., and Gopalan, C. Skim milk vs fish protein concentrates in treatment of kwashiorkor. Amer. Jour. Clin. Nutr. 18: 34-37. 1966.

165. Steele, D. S., Miller, L. T., Baumann, C. A., and Reynolds, M. S. Nitrogen balances of human subjects fed free or bound (wheat flour) methionine. (Abstract) Fed. Proc. 17: 494. 1958.

166. Subrahmanyan, V., Bhaganan, R. K., Doraiswamy, T. R., Joseph, K., Bains, G. S., Bhatia, D. S., Sankaran, A. N., and Swaminathan, M. The effect of replacement of rice in a poor vegetarian diet by tapioca macaroni on the general health and nutritional status of children. Brit. Jour. Nutr. 12: 353-358. 1958.

167. Sumner, E. E., Pierce, H. B., and Murlin, J. R. The egg replacement value of several proteins in human nutrition. Jour. Nutr. 16: 37-56. 1938.

168. Swaminathan, M. The use of soyabean and its products in feeding infants and in the prevention of protein malnutrition in weaned infants and preschool children in developing countries. Jour. Nutr. and Dietet. (India) 3: 138-150. 1966.

169. Tannous, R. I., Cowan, J. W., Rinnu, F., Asfour, R. J., and Sabry, Z. I. Protein-rich food mixtures for feeding infants and preschool children in the Middle East. I. Development and evaluations of Laubina mixtures. Amer. Jour. Clin. Nutr. 17: 143-147. 1965.

170. Tuttle, W. W., Daum, K., Roberts, H., and Randall, B. Physiologic response to size and content of breakfasts by men over 60. Jour. Amer. Dietet. Assoc. 29: 34-40. 1953.

171. Vasantgadkar, P. S., Venkatachalam, P. S., and Tulpule, P. G. Partition of urinary nitrogen in children with kwashiorkor treated with animal and vegetable proteins. Amer. Jour. Clin. Nutr. 12: 150-156. 1963.

172. Venkatachalam, P. S., and Srikantia, S. G. Clinical trials with vegetable protein foods. Proc. Symposium on Proteins, Cent. Food Tech. Res. Inst. (Mysore) pp. 1-7. 1961.

173. Venkatachalam, P. S., Srikantia, S. G., Mehta, G., and Gopalan, C. Treatment of nutritional oedema syndrome (kwashiorkor) with vegetable protein diets. Indian Jour. Med. Res. 44: 539-545. 1956.

174. Walker, A. R. P. Certain biochemical findings in man in relation to diet. Ann. N. Y. Acad. Sci. 69: 989-1008. 1958.

175. Walker, A. R. P., Fox, F. W., and Irving, J. T. Studies in human mineral metabolism. I. The effect of bread rich in phytic phosphorus on the metabolism of certain mineral salts with special reference to calcium. Biochem. Jour. 42: 452-462. 1948.

176. Watts, J. H., Tolburt, B., and Ruff, W. L. Nitrogen balances of young men fed selected amino acid patterns. I. FAO reference pattern, a modification FAO reference pattern and a wheat flour pattern. Canad. Jour. Biochem. 42: 1437-1444. 1964.

177. Widdowson, E. M., and McCance, R. A. Studies on the nutritional value of bread and the effect of variation in the extraction rate of flour on the growth of undernourished children. Med. Res. Council Spec. Rpt. Ser. 287. 1954. (London)

178. Widdowson, E. M., and Thrussell, L. A. Studies on undernutrition, Wuppertal 1946-49. Spec. Rpt. MRC, No. 275, pp. 301-310. 1951.

179. Wijn, J. F. de, and others. (The effect of bread on the cholesterol level of the blood serum in West European diet patterns.) Nederl. T. Geneesh. 110: 373-377. 1966.

180. Yang, S. P., Clark, H. E., and Vail, G. E. Effect of varied levels and single daily supplementation of lysine on the nutritional improvement of wheat flour proteins. Jour. Nutr. 75: 241-246. 1961.

182. Zimmerman-Telschow, H., and Jefkat, F. Changes in the free amino acids in fasting serum and urine of human subjects in relation to diet. III. Experimental feeding with wheat bread. Nutr. et Dieta. 7: 283-302. 1965.

Experimental Animal Studies

183. Anonymous. Low caries producing ability of wheat products. Nutr. Rev. 23: 275-276. 1965.

184. Abderhalden, E. (Nutrition experiments with completely hydrolyzed foodstuffs.) Ztschr. Physiol. Chem. 77: 22-58. 1912.

185. Abelin, I. (The bread question. III. On the physiological effects of whole grain bread.) Biochem. Zeit. 231: 278-294. 1931.

186. Adolph, W. H., and Cheng, F. W. The biological value of mixed cereal proteins. Chinese Jour. Physiol. 9: 245-252. 1935.

187. Adolph, W. H., Shammas, E. I., and Halaby, S. H. The nutritive value of legume proteins and legume-wheat mixed proteins in Near East diets. Food Res. 20: 31-34. 1955.

188. Adolph, W. H., and Tsu, Y-F. Effect of steaming compared to baking on the nutritive value of wheat bread. Chinese Jour. Physiol. 9: 275-284. 1935.

189. Allison, J. B. Interpretation of nitrogen balance data. Fed. Proc. 10: 676-683. 1951.

190. Allison, J. B. Biological evaluation of proteins. Physiol. Rev. 35: 664-700. 1955.

191. Allison, J. B. The nutritive value of dietary proteins. In Mammalian Protein Metabolism. Vol. II, pp. 41-86. Edit. H. N. Munro and J. Balliser, Academic Press. 1964.

192. Allison, J. B., Anderson, J. A., and Seeley, R. D. Some effects of methionine on the utilization of nitrogen in the adult dog. Jour. Nutr. 33: 361-370. 1947.

193. Allison, J. B., Anderson, J. A., and White, J. I. Evaluation of the nutritive value of proteins with normal and protein deficient dogs. Trans. Assoc. Cereal Chem. 7: 24. 1949.

194. Allison, J. B., Wannemacher, R. W., Middleton, E., and Spoerlein, T. Dietary protein requirements and problems of supplementation. Food Tech. 13: 597-602. 1959.

195. Anderson, G. H., and Bowland, J. P. Lysine and fat addition to a low protein diet for weanling pigs. (Abstract) VII Internatl. Cong. Nutr., Hamburg, p. 184. 1966.

196. Arata, D., Walworth, D. J., and Cederquist, D. C. Protein quality of two specialty breads. Jour. Amer. Dietet. Assoc. 46: 290-292. 1965.

197. Arimoto, K., Tamura, E., Kobatake, Y., Matsuno, N., and Niizeki, S. Effect of excessive dietary intake of individual essential amino acids on the free amino acid concentrations in plasma and tissues of rats. (Abstract No. 29) Annual Rpt. Tanabe Amino Acid Research Foundation, Osaka, Japan, p. 30. 1965.

198. Arnrich, L., Hunt, C. N., Axelrod, H. E., and Morgan, A. F. Evaluating of six partially purified proteins by rat growth, nitrogen retention by young rats and liver regeneration. Jour. Nutr. 43: 99-111. 1951.

199. Bains, G. S. Effect of commercial fertilizers and green manure on yield and nutritive value of wheat. II. Nutritive value with respect to general composition, thiamine, nicotinic acid and the biological value of the protein of grain. Cereal Chem. 30: 139. 1953.

200. Bains, G. S., Venkat Rao, S., Bhatia, D. S., and Subrahmanyan, V. Effect of lysine and milk protein supplement on the protein efficiency of wheat macaroni. Brit. Jour. Nutr. 18: 241-244. 1964.

201. Ballschmieter, H. M. B., Rickert, E., and Schweigart, F. The utilization of mealies in bread and other products. So. African Med. Jour. 38: 648-652. 1964.

202. Banerjee, R. M., and Das, N. B. Nutritive value of some pure strains of Indian wheat. Indian Jour. Expt. Biol. 2: 114-116. 1964.

203. Banks, W. L., Allison, J. B., and Wannemacher, R. W. Supplementation of wheat gluten protein. Jour. Nutr. 82: 61-66. 1964.

204. Barakat, M. R. Improvement of nutritive value of bread and its effect on public health in Egypt. Jour. Expt. Pub. Health Assoc. 28: 103-112. 1953.

205. Barnes, R. H., Bates, M. J., and Maack, J. E. The growth and maintenance utilization of dietary protein. Jour. Nutr. 32: 535-548. 1946.

206. Barnes, R. H., Maack, J. E., Knight, M. J., and Burr, G. O. Measurement of the growth promoting quality of dietary protein. Cereal Chem. 22: 273-296. 1945.

207. Bartnik, J. (Comparison of the nutritive value of rye and wheat. I. Nutrient content of rye and wheat grain with reference to their digestibility and biological value.) Rocz. Panst. Zaki. Hig. 16: 233-241. 1965.

208. Bartnik, J. (Nutritive value of rye as compared to wheat. II. Effect of industrial food processing on the nutritive value of rye and wheat products in the light of general aspects of nutrition.) Rocz. Panst. Zaki. Hig. 16: 421-427. 1965.

209. Baxter, D. M. Lysine supplementation of wheat flour and wheat flour products in Canada and U.S. Jour. Canad. Dietet. Assoc. 25: 24-26. 1963. (A review.)

210. Beaty, A., and Fairbanks, B. W. Evaluating the nutritive values of several breads by gestation-lactation performance. Cereal Chem. 25: 202-213. 1948.

211. Beaudoin, R., Mayer, J., and Stare, F. J. Improvement of protein quality of whole wheat. Proc. Soc. Expt. Biol. Med. 78: 450-451. 1951.

212. Beeson, W. M., Lehrer, W. P., and Woods, E. Peas supplemented with wheat germ or corn germ as a source of protein for growth. Jour. Nutr. 34: 587-593. 1947.

213. Bender, A. E. Nutritive value of bread protein fortified with amino acids. Proc. Nutr. Soc. 16: 18. 1957. Also: Science 127: 874. 1958.

214. Bender, A. E., and Doell, B. H. Biological evaluation of proteins; a new aspect. Brit. Jour. Nutr. 11: 140-148. 1957.

215. Benedetti, P. C., Mariani, A., Spadoni, M. A., and Tagliamonte, B. (Enrichment of diets based on cereals and legumes. I. Short term effects of rats fed on diets enriched with different levels of dried skim milk.) Quad. Nutr. 24: 11-21. 1964.

216. Benedetti, P. C., Mariani, A., Spadoni, M. A., and Tagliamonte, B. (Enrichment of diets based on cereals and legumes. II. Effects on successive generations of rats fed on diets enriched with different levels of powdered skimmed milk.) Quad. Nutr. 24: 137-150. 1964.

217. Benedetti, P. C., Mariani, A., Spadoni, M. A., and Tagliamonte, B. (Enrichment of diets based on cereals and legumes. III. Short term effects on rats fed on diets enriched with different levels of dl-methionine.) Quad. Nutr. 24: 151-162. 1964.

218. Berger, S., and Pardo, B. The influence of gluten supplemented with l-lysine on b-carotene conversion into vitamin A measured by liver test. (Abstract) Proc. VI Internatl. Cong. Nutr., Edinburg, p. 544. 1963.

219. Block, R. J., Cannon, P. R., Wissler, R. W., Steffee, C. H., Straube, R. L., Frazier, L. E., and Woolridge, R. L. The effect of baking and toasting on the nutritional value of proteins. Arch. Biochem. 10: 295-301. 1946.

220. Block, R. J., Howard, H. W., Monson, W. J., and Bauer, C. D. Nutritive value of commercial breads. Jour. Amer. Dietet. Assoc. 35: 245-246. 1959.

221. Boas-Fixsen, M. A. The biological value of protein in nutrition. Nutr. Abst. Rev. 4: 447-459. 1935.

222. Boas-Fixsen, M. A., Hutchinson, J. C. D., and Jackson, H. M. The biological value of proteins. V. The comparative biological values of the proteins of whole wheat, whole maize and maize gluten measured by the growth of young rats. Biochem. Jour. 28: 592-601. 1934.

223. Boas-Fixsen, M. A., and Jackson, H. M. Biological value of proteins. IV. The biological values of the milk proteins of wheat, maize and milk. Biochem. Jour. 26: 1923-1933. 1932.

224. Bornstein, S., and Lipstein, B. Evaluation of the nutritive quality of different types of bread by feeding trials with chicks. Israel Jour. Agr. Res. 12: 63-74. 1962.

225. Bosshardt, D. K., and Barnes, R. H. The determination of metabolic fecal nitrogen and protein digestibility. Jour. Nutr. 31: 13-21. 1946.

226. Bosshardt, D. K., Ydse, L. C., Ayies, M. M., and Barnes, R. H. The use of mice for measuring the growth promoting quality of proteins. Jour. Nutr. 31: 23-33. 1946.

227. Bressani, R., Braham, J. E., Elias, L. G., and de Zaghi, S. Relationship between net protein utilization (NPU) and nitrogen efficiency ratio (NER). Nutr. Dieta. 7: 161-174. 1965.

228. Brown, J. W., Flodin, N. W., Gray, E. H., and Paynter, O. E. The effect of lysine supplementation on the protein efficiency of high protein breads. Cereal Chem. 36: 545-553. 1959.

229. Buechler, E., and Guggenheim, K. The effect of quantitative and qualitative protein deficiency on blood regeneration. II. Hemoglobin. Blood 4: 964-969. 1949.

230. Burke, R. P. The effect of bread baking and drying on the stability of lysine, histidine and arginine. Proc. Nutr. Soc. So. Africa 1: 63-64. 1960.

231. Calhoun, W. K., Hepburn, F. N., and Bradley, W. B. The availability of lysine in wheat, flour, bread and gluten. Jour. Nutr. 70: 337-347. 1960.

232. Calloway, D. H., Burroughs, S. E., and Stone, H. Balanced protein mixtures based on wheat and peas. Jour. Food Sci. 30: 545-549. 1965.

233. Campagnoli, M. Enrichment of bread with casein. Technical, experimental and clinical observations. (Abstract) II Internatl. Cong. of Food Sci. and Tech., Warsaw, Poland, p. 499. 1966.

234. Campbell, H L., and Sherman, H. C. Nutritional effects of the addition of meat and green vegetable to a wheat and milk diet. Experiments with rats. Jour. Nutr. 16: 603-612. 1938.

235. Campbell, J. A. Evaluation of proteins in foods for regulatory purposes. Jour. Agr. Food Chem. 8: 323-327. 1960.

236. Campbell, R. M., and Kosterlitz, H. W. The assay of the nutritive value of a protein by its effect on liver cytoplasm. Jour. Physiol. 107: 383-398. 1948.

237. Carlson, S. C., Hafner, F. H., and others. Effect of soy flour and nonfat dry milk solids in white bread on the nutritional quality of the protein as measured by three biological methods. Cereal Chem. 23: 305-317. 1946.

238. Chick, H. Nutritive value of white flour with vitamin B_1 added and of whole meal flour. Lancet I: 511-512. 1940.

239. Chick, H. Biological value of the proteins contained in wheat flours. Lancet I: 405-408. 1942.

240. Chick, H., Copping, A. M., and Slack, E. B. Nutritive values of wheat flours of different extraction rate. Lancet I: 196-199. 1946.

241. Chick, H., Cutting, M. E. M., Martin, C. J., and Slack, E. B. Observations on the digestibility and nutritive value of the nitrogenous constituents of wheat bran. Brit. Jour. Nutr. 1: 161-182. 1947.

242. Chick, H., and Slack, E. B. Further observations on the nutritive value of the proteins contained in wheat flours of different extraction rates. British Jour. Nutr. 2: 205-213. 1948.

243. Chitre, R. G., and Vallury, S. M. Studies on the protein value of cereals and pulses. I. Effect of feeding on growth, blood hemoglobin and plasma proteins in young rats. Indian Jour. Med. Res. 44: 555-563. 1956.

244. Chitre, R. G., and Vallury, S. M. Studies on the protein value of cereals and pulses. II. Effect of feeding on total protein, fat, and glycogen content of livers in young rats. Indian Jour. Med. Res. 44: 565-571. 1965.

245. Chow, B. F., Alper, C., and de Biase, S. The effects of oral administration of different proteins on the plasma proteins of protein-depleted dogs. Jour. Nutr. 36: 785-801. 1948.

246. Clark, J. A. K., and Kennedy, B. M. Availability of lysine in whole wheat bread and in selected breakfast cereals. Jour. Food Sci. 27: 609-616. 1962.

247. Coulson, C. B., and Sims, A. K. Proteins of wheat flour. Nature 208: 583-584. 1965.

248. Cowgill, G. R., Jones, M. H., Frisch, R. A., and Jackson, G. P. Studies on the effects of abundant cereal intake. I. The use of cereals as the chief source of calories. Jour. Amer. Med. Assoc. 89: 1770-1774. 1927.

249. Dalderup, L. M., Hartog, C. den, Pol, G., and Rutgers, R. Studies in rats given a barley product mixed up in food. Growth, fertility, stress, intestinal function, longevity. Nutr. Dieta. 7: 120-134. 1965.

250. Daniel, V. A., Leela, R., Rao, S. V., Hariharan, K., Indiramma, K., Swaminathan, M., and Parpia, H. A. B. Mutual and amino acid supplementation of proteins. II. Nutritive value of the proteins of blends of wheat, groundnut, soya bean, Bengal gram, sesame and skim milk powder fortified with limiting essential amino acids. Jour. Nutr. Dietet. (India) 1: 293-296. 1964.

251. Daniel, V. A., Leela, R., Subrahmanyara Urs, S., Rajalakshmi, D., Venkat Rao, S., Swaminathan, M., and Parpia, H. A. B. The supplementary value of the proteins of soya bean as compared with those of Bengal gram, red gram and skim milk powder to poor Indian diets based on rice and wheat. Jour. Nutr. Dietet. (India) 2: 128-133. 1965.

252. Dawbarn, M. C. Effects of milling upon the nutritive value of wheaten flour and bread. Nutr. Abs. Rev. 18: 691-706. 1949.

253. Deshpande, P. D., Harper, A. E., and Elvehjem, C. A. Nutritional improvement of white flour with protein and amino acid supplements. Jour. Nutr. 62: 503-512. 1957.

254. Dikshit, P. K., and Ranganathan, S. The effect of rice and wheat diets on growth, reproduction and lactation in albino rats. Indian Jour. Med. Res. 46: 496-502. 1958.

255. Dodds, M. L. Cariogenic property of cereal food. Jour. Nutr. 71: 317-321. 1960.

256. Eddy, W. A., and Eckman, R. S. The supplementary protein value of peanut flour. Jour. Biol. Chem. 55: 119-129. 1923.

257. Edwards, C . H. The wider uses of wheaten flour. Chem. Indust. 2: 59-64. 1966.

258. Edwards, C . H., Thompson, E. S., and Tyson, M. H. Nitrogen balances and growth of rats fed vegetable protein diets. Jour. Amer. Dietet. Assoc. 48: 38-44. 1966.

259. Ehle, S. R., and Jansen, G. R. Studies on breads supplemented with soy, nonfat dry milk and lysine. I. Physical and organoleptic properties. Food Tech. 19: 129-133. 1965.

260. Ehle, S. R., and Jansen, G. R. Studies on breads supplemented with soy, nonfat dry milk, and lysine. II. Nutritive value. Food Tech. 19: 1439. 1965.

261. El Ridi, M. S. The biological value of date pollen; its application as a supplement for wheat flour. Jour. Royal Egypt. Med. Assoc. 35: 645-649. 1952.

262. Elwood, P. C. Bread and other foods of plant origin as a source of iron. Proc. Nutr. Soc. (Brit.) 24: 112-120. 1965.

263. Engel, C., Gorter, A., and Van Eekelen, M. (Food value of bread. IV. Growth tests with rats on an average Netherlands diet with different kinds of bread.) Voeding. 12: 441-453. 1951.

264. Ericson, L. E., and Larsson, S. The loss of added lysine during the baking of soft bread with an exceptionally high content of reducing sugar. Acta Physiol. Scand. 55: 64-73. 1962.

265. Ericson, L. E., Larsson, S., and Lid, G. The loss of added lysine and threonine during the baking of wheat bread. Acta Physiol. Scand. 53: 85-98. 1961.

266. Ericson, L. E., Larsson, S., and Lid, G. A comparison of the efficiencies of free lysine and of roller-dried skim milk, fish protein and soya bean protein for the supplementation of wheat bread. Acta. Physiol. Scand. 53: 366-375. 1961.

267. Ericson, L. E., Larsson, S., and Rubarth, S. The effect of supplementation of wheat bread with amino acids and proteins on liver and muscle composition. Acta Agr. Scand. 12: 234-250. 1962.

268. Ericson, L. E., and Ovenfors, C. Studies on the possibilities of improving the nutritive value of Swedish wheat bread. I. The effect of lysine supplementation. Acta Physiol. Scand. 47: 44-51. 1959.

269. Fairbanks, B. W. A study by the paired feeding method of the nutritive value of bread made with milk solids. Cereal Chem. 16: 404-414. 1939.

270. Fairbanks, B. W. Improving the nutritive value of bread by the addition of dry milk solids. Cereal Chem. 15: 169-180. 1938.

271. Flodin, N. W. The philosophy of amino acid fortification of foods. Cereal Sci. Today 1: 165-170. 1956.

272. Gates, J. C., and Kennedy, B. M. Protein quality of bread and bread ingredients. Effects of using nonfat dry milk and lysine. Jour. Amer. Dietet. Assoc. 44: 374-377. 1964.

273. Geiger, E. The role of the time factor in feeding supplementary proteins. Jour. Nutr. 36: 813-819. 1948.

274. Gopalakrishna Rao, N., Venkat Rao, S., Bains, G. S., Bhatia, D. S., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Studies on enriched tapioca-macaroni products. III. Overall growth promoting value. Food Sci. (Mysore) 10: 383-385. 1961.

275. Gopalan, C. Availability of lysine in processed foods and their protein efficiency ratio (PER) and net protein utilization (NPU). Ann. Rpt. Natl. Nutr. Res. Lab., India, pp. 14-15. 1965.

276. Gotthold, M. L. M., and Kennedy, B. M. Biological evaluation of protein in steamed and baked breads and in bread ingredients. Jour. Food Sci. 29: 227-232. 1964.

277. Greaves, E. O., and Greaves, J. E. Nutritive value of high and low calcium carrying wheat. Jour. Nutr. 6: 113-125. 1933.

278. Griswold, R. M. Effect of heat on the nutritive value of proteins. Jour. Amer. Dietet. Assoc. 27: 85-93. 1951.

279. Guggenheim, K. The nutritive value of proteins of diets consumed in Israel as affected by extraction rate of flour and its supplementation with soya meal. Bul. Res. Council, Israel 9E: 159-165. 1961.

280. Guggenheim, K., and Buechler, E. The effect of quantitative and qualitative protein deficiency on blood regeneration. I. White blood cells. Blood 4: 958-963. 1949.

281. Guggenheim, K., and Buechler-Czaczkes, E. The effect of quantity and quality of food proteins on the regeneration of liver protein in protein-depleted rats. Brit. Jour. Nutr. 4: 161-165. 1950.

282. Guggenheim, K., and Friedmann, N. Effect of extraction rate of flour and of supplementation with soy meal on the nutritive value of bread proteins. Food Tech. 14: 298-300. 1960.

283. Guggenheim, K., Halevy, S., and Friedmann, N. Levels of lysine and methionine in portal blood of rats following protein feeding. Arch. Biochem. Biophys. 91: 6-10. 1960.

284. Halevy, S., and Guggenheim, K. The biological availability of heated wheat gluten-glucose mixture. Arch. Biochem. Biophys. 44: 211-217. 1953.

285. Harper, A. E., Winje, M. E., Benton, D. A., and Elvehjem, C. A. Effect of amino acid supplements on growth and fat deposition in the livers of rats fed polished rice. Jour. Nutr. 56: 187-198. 1955.

286. Harris, H. A., Neuberger, A., and Sanger, F. Lysine deficiency in young rats. Biochem. Jour. 37: 508-513. 1943.

287. Harris, R. S., Clark, M., and Lockhart, E. E. Nutritional value of bread containing soya flour and milk solids. Arch. Biochem. 4: 243-247. 1944.

288. Harrison, H. C., and Long, C. N. H. Regeneration of liver protein in the rat. Jour. Biol. Chem. 161: 545-557. 1945.

289. Hart, E. B., and McCollum, E. V. Influence on growth of rations restricted to the corn or wheat grain. Jour. Biol. Chem. 19: 373-395. 1914.

290. Hart, E. B., Miller, W. S., and McCollum, E. V. Further studies on the nutritive deficiencies of wheat and grain mixtures and the pathological conditions produced in swine by their use. Jour. Biol. Chem. 25: 239-260. 1916.

291. Harte, R. A., Travers, J. J., and Sarich, P. The effect on rat growth of alternated protein intakes. Jour. Nutr. 35: 287-293. 1948.

292. Hartwell, G. A. An experimental study of brown and white bread in the diet of the rat. Biochem. Jour. 18: 1323-1362. 1924.

293. Hegsted, D. M., and Chang, Y-O. Protein utilization in growing rats. I. Relative growth index as a bioassay procedure. Jour. Nutr. 85: 159-168. 1965.

294. Hegsted, D. M., Trulson, M. F., and White, H. S. Lysine and methionine supplementation of all-vegetable diets for human adults. Jour. Nutr. 59: 555-576. 1956.

295. Hegsted, D. M., and Worcester, J. The relation between protein efficiency and gain in weight on diets of constant protein content. Jour. Nutr. 33: 685-702. 1947.

296. Henry, K. M. A comparison of biological methods with rats for determining the nutritive value of proteins. Brit. Jour. Nutr. 19: 125-135. 1965.

297. Henry, K. M., Houston, J., Kon, S. K., Powell, J., Carter, R. H., and Halton, P. The effects of additions of dried skim milk and dried whey on the baking quality and nutritive properties of white bread. Jour. Dairy Res. 12: 184-212. 1941.

298. Henry, K. M., and Kon, S. K. The biological value of the proteins (nitrogen) of breads baked from flours of different extraction. Jour. Soc. Chem. Indust. 64: 227-229. 1945.

299. Henry, K. M., and Kon, S. K. The supplementary relationships between the proteins of dairy products and those of bread and potato as affected by the method of feeding, with a note on the value of soya bean protein. Jour. Dairy Res. 14: 330-339. 1946.

300. Henry, K. M., and Kon, S. K. The effect on the biological value of bread nitrogen of additions of dried skim milk and of soya flour. Jour. Dairy Res. 16: 53-57. 1949.

301. Henry, K. M., and Kon, S. K. Vitamin B_{12} and protein metabolism. Brit. Jour. Nutr. 10: 39-50. 1956.

302. Henry, K. M., Kon, S. K., and Rowland, S. J. Studies of the biological value of the proteins (nitrogen) of dried skim milk: Value as an addition to bread; tests with young and older rats; effects of storage. Jour. Dairy Res. 14: 403-414. 1946.

303. Henry, K. M., Kosterlitz, H. W., and Quenouille, M. H. A method for determining the nutritive value of a protein by its effect on liver protein. Brit. Jour. Nutr. 7: 51-67. 1953.

304. Hepburn, F. N., Calhoun, W. K., and Bradley, W. B. The distribution of the amino acids of wheat in commercial mill products. Cereal Chem. 37: 749-755. 1960.

305. Hepburn, F. N., Calhoun, W. K., and Bradley, W. B. The biological availability of essential amino acids in wheat, flour, bread and gluten. Cereal Chem. 43: 271-283. 1966.

306. Hoagland, R., and Snider, G. G. The value of beef protein as a supplement to the proteins in certain vegetable products. Jour Agr. Res. 34: 297-308. 1927.

307. Hogan, A. G., Powell, E. L., and Guerrant, R. E. Anemia from lysine deficiency in deaminized casein. Jour. Biol. Chem. 137: 41. 1941.

308. Horder, L., Dodds, C., and Moran, T. Bread, the Chemistry and Nutrition of Flour and Bread. London Constable, 51 pp. 1954.

309. Hove, E. L., Carpenter, L. E., and Harrell, C. G. The nutritive quality of some plant proteins and the supplemental effect of some protein concentrates on patent flour and whole wheat. Cereal Chem. 22: 287-295. 1945.

310. Hove, E. L., and Harrell, C. G. The nutritive value of wheat germ protein. Cereal Chem. 20: 141-148. 1943.

311. Howard, H. W., Bauer, C. D., and Bloch, R. J. Complete vs total protein in evaluation of diets. Jour. Agr. Food Chem. 8: 486-488. 1960.

312. Howard, H. W., Monson, W. J., Bauer, C. D., and Bloch, R. J. The nutritive value of bread flour proteins as affected by practical supplementation with lactalbumin, nonfat dry milk solids, soybean flour, wheat gluten and lysine. Jour. Nutr. 64: 151-165. 1957.

313. Howe, E. E. Amino acid supplementation. Borden's Rev. of Nutr. Res. 19: 19-34. 1958.

314. Howe, E. E., and Dooley, C. L. Effect of delayed supplementation of wheat gluten with lysine and threonine on its capacity to promote growth in the weanling rat. Jour. Nutr. 81: 379-382. 1963.

315. Howe, E. E., Jansen, G. R., and Gilfillan, E. W. Amino acid supplementation of cereal grains as related to the world food supply. Amer. Jour. Clin. Nutr. 16: 315-320. 1965.

316. Hundley, J. M. Enrichment of foods with protein. Ann. N. Y. Acad. Sci. 69: 1042-1060. 1958.

317. Hundley, J. M., Ing, R. B., and Krauss, R. W. Algae as sources of lysine and threonine in supplementing wheat and bread diets. Science 124: 536-537. 1956.

318. Hutchinson, J. B., Moran, T., and Pace, J. Effect on the growth rate of weanling rats of supplementing the protein of white bread with l-lysine. Nature 178: 46-47. 1956.

319. Hutchinson, J. B., Moran, T., and Pace, J. Bread and the growth of weanling rats: The lysine-threonine balance. Nature 181: 1733. 1958.

320. Hutchinson, J. B., Moran, T., and Pace, J. The nutritive value of bread protein as influenced by the level of protein intake, the level of supplementation with l-lysine and l-threonine, and the addition of egg and milk proteins. Brit. Jour. Nutr. 13: 151-163. 1959.

321. Hutchinson, J. B., Moran, T., and Pace, J. The effect of a steam treatment on the feeding value of wheat. Jour. Sci. Food Agr. 15: 413-417. 1964.

322. Jacquot, R., Adrian, J., and Rerat, A. Une cereale oubliee : l'epeautre. (A forgotten cereal: spelt.) (Triticum spelta) Ann. Nutr. et aliment. 13: 17-31. 1959.

323. Jagannathan, S. N. Effect of feeding fat blends of hydrogenated groundnut (peanut) fat and cottonseed oil containing different levels of linoleic acid on serum cholesterol levels in monkeys (macaca radiata) and liver cholesterol concentration in cholesterol-fed rats. Jour. Nutr. 77: 317-331. 1962.

324. Jahnke, J. K., and Schuck, C. Growth response and liver fat deposition in rats fed bread mixtures with varying levels of nonfat milk solids and lysine. Jour. Nutr. 61: 307-316. 1957.

325. Janicki, J., and Kowalczyk, J. (Biological value of rye proteins as compared with wheat.) Vitalstoffe, Zivilsationskrankh. 10: 14-21. 1965. Also: Chem. Abs. 63: 4731. 1965.

326. Janicki, J., and Kowalczyk, J. (Nutritional value of rye and wheat, with special reference to proteins and vitamins.) Qual. Plant Material Veg. 13: 119-136. 1966.

327. Jansen, G. R. Influence of rat strain and protein level on protein efficiency ratio (PER) determination. Jour. Nutr. 78: 231-240. 1962.

328. Jansen, G. R., and Ehle, S. R. Studies on breads supplemented with soy, nonfat dry milk and lysine. II. Nutritive value. Food Tech. 19: 133-136. 1965.

329. Jansen, G. R., Ehle, S. R., and Hause, N. L. Studies of the nutritive loss of supplemental lysine in baking. I. Loss in standard white bread containing 4% nonfat dry milk. Food Tech. 18: 367-371. 1964.

330. Jansen, G. R., Ehle, S. R., and Hause, N. L. Studies of the nutritive loss of supplemental lysine in baking. II. Loss in water bread and in breads supplemented with moderate amounts of nonfat dry milk. Food Tech. 18: 373-375. 1964.

331. Jansen, G. R., Hutchinson, C. F., and Zanetti, M. E. Supplementation of bread with fish flour and amino acids. A comparison of evaluations of methods. Food Tech. 20: 91-94. 1966.

332. Johns, C. O., and Finks, A. J. Studies in nutrition. IV. The nutritive value of peanut flour as a supplement to wheat flour. Jour. Biol. Chem. 42: 569. 1920.

333. Johns, C. O., and Finks, A. J. The nutritive value of soybean flour as a supplement to wheat flour. Amer. Jour. Physiol. 55: 455-461. 1921.

334. Jones, D. B. A new factor for converting the percentage of nitrogen in wheat into that of protein. Cereal Chem. 3: 194-198. 1926.

335. Jones, D. B. Sex differences in the growth of young rats and survival of adult rats fed protein deficient diets. Jour. Nutr. 44: 465-476. 1951.

336. Jones, D. B., Caldwell, A., and Widness, K. D. Comparative growth-promoting values of the proteins of cereal grains. Jour. Nutr. 35: 639-650. 1948.

337. Jones, D. B., and Divine, J. P. The protein nutritional value of soybean, peanut and cottonseed flour and their values as supplements to wheat flour. Jour. Nutr. 28: 41-49. 1944.

338. Jones, D. B., and Widness, K. D. The comparative growth-promoting value of the proteins of wheat germ, corn, germ, and some other protein foods of plant and animal origin. Jour. Nutr. 31: 675-683. 1946.

339. Kennedy, B. M., and Sabistin, A. R. Quality of the protein in selected wheat products. Cereal Chem. 37: 535-543. 1960.

340. Kent-Jones, D. W. Nutritive value of bread. Brit. Food Jour. 52: 1-4. 1950.

341. Kilby, P. Patterns of bread consumption in Nigeria. Food Res. Inst. Studies 5: 3-18. 1965.

342. Klein, A., Harrow, B., Pine, L., and Funk, C. The nutritive value of various layers of the wheat and corn kernel. Amer. Jour. Physiol. 76: 237-246. 1926.

343. Kohler, G. Effect of processing on biological value of wheat proteins. In Report of II Natl. Conf. on Wheat Utilization Res., Peoria, Ill. pp. 147-157. 1963. Mar. 1964.

344. Kon, S. K., and Markuze, Z. The biological values of the proteins of breads baked from rye and wheat flours alone or combined with yeast or soybean flour. Biochem. Jour. 25: 1476-1484. 1931.

345. Krehl, W. A., Sarma, P. S., and Elvehjem, C. A. The effect of protein on the nicotinic and tryptophan requirement of the growing rat. Jour. Biol. Chem. 162: 403-411. 1946.

346. Krishnamurthy, K., Ramakrishnan, T. N., Rajagopalan, R., Swaminathan, M., and Subrahmanyan, V. Nutritive value of composite protein foods based on blends of peanut, soybean and sesame flours. Food Sci. (Mysore) 9: 86-88. 1960.

347. Kuiken, K. A., and Lyman, C. M. Availability of amino acids in some foods. Jour. Nutr. 36: 359-368. 1948.

348. Kuppuswamy, S., Srinivasan, M., and Subrahmanyan, V. Protein in foods. Indian Council Med. Res. Spec. Rpt. Ser. 33, 290 pp. 1958.

349. Lamb, M. W., Michie, J. M., And Rivers, J. M. A comparison of the nutritive value of three sorghum grains with that of wheat. Cereal Chem. 43: 447-455. 1966.

350. Laporte, P., and Tremolieres, J. Inhibitor action of rice, oat, corn, barley, wheat and rye and buckwheat flours on certain proteolytic enzymes of pancreas. Comp. Rend. Soc. Biol. 156: 1261-1263. 1962.

351. Larsson, S. A comparison of the biological value of various types of Swedish bread and the effect of added lysine. Acta Physiol. Scand. 66: 157-163. 1966.

352. Learmonth, M. E., and Wood, J. C. A trypsin inhibitor in wheat flour. Cereal Chem. 40: 61-65. 1963.

353. Leatham, J., and Fisher, C. Protein nutrition and placental proteins. (Abstract) VII Internatl. Cong. Nutr., Hamburg, p. 209. 1966.

354. Lewis, E. W., Elvehjem, C. A., and Hart, E. B. Studies of the nature of the nutritional deficiencies of wheat gluten meal. Jour. Nutr. 43: 113-130. 1951.

356. Light, R. F., and Frey, C. N. The nutritive value of white and whole wheat breads. Cereal Chem. 20: 645-660. 1943.

357. Lombard, J. H., Brandt, J., and Wehmeyer, A. S. A study of the nutrient content of the varieties of bread in common use in South Africa. So. African Med. Jour. 39: 488-491. 1965.

358. London, W. T., Vought, R. L,, and Brown, F. A. Bread--a dietary source of large quantities of iodine. New England Jour. Med. 273: 381. 1965.

359. Longenecker, J. B. Relationship between plasma amino acids and composition of ingested protein. III. Effect of dietary protein on plasma amino acids and clinical chemistry of dogs. In Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci-Natl. Res. Council Pub. 843, pp. 469-487. 1961.

360. Longenecker, J. B. Utilization of dietary proteins. In Newer Methods of Nutrition Biochemistry, Chapter 2, p. 113-144. Edit. A. A. Albanese, Academic Press 1963.

361. Longenecker, J. B., and Hause, N. L. Relationship between plasma amino acids and composition of the ingested proteins. Arch. Biochem. Biophys. 84: 46-59. 1959.

362. Longenecker, J. B., and Hause, N. L. Relationship between plasma amino acids and composition of the ingested protein. II. A shortened procedure to determine plasma amino acid (PAA) ratios. Amer. Jour. Clin. Nutr. 9: 356-362. 1961.

363. Lowery, R. S., and others. Influence of caloric level and protein quality on the manifestations of protein deficiency in the young pig. Jour. Nutr. 78: 245-254. 1962.

364. Luce, W. G., Peo, E. R. Jr., and Hudman, D. B. Availability of niacin in wheat for swine. Jour. Nutr. 88: 39-44. 1966.

365. McCance, R. A., Prior, K. M., and Widdowson, E. M. A radiological study of the rate of passage of brown and white bread through the digestive tract of man. Brit. Jour. Nutr. 7: 98-104. 1953.

366. McCarrison, R. The experimental production of bladder stone in rats. Bul. Hyg. 5: 699. 1927.

367. McCarrison, R. Whole wheat bread and white bread. Brit. Med. Jour. 2: 913. 1929. Also: Indian Jour. Med. Res. 17: 721-735. 1930.

368. McClure, F. J. Dental caries in rats fed a diet containing processed cereal foods and low content of refined sugar. Science 116: 229-231. 1952.

369. McClure, F. J. Lysine and cariogenicity of two experimental rat diets. Science 122: 557-558. 1955.

370. McClure, F. J. Wheat cereal diets, rat caries, lysine and minerals. Jour. Nutr. 65: 619-631. 1958.

371. McCollum, E. V. The value of the proteins of cereal grains of milk for growth in the pig, and the influence of the plane of protein intake on growth. Jour. Biol. Chem. 19: 323-333. 1914.

372. McCollum, E. V., and Davis, M. The influence of certain vegetable fats on growth. Jour. Biol. Chem. 21: 179-182. 1915.

373. McCollum, E. V., and Davis, M. The nature of the dietary deficiencies of rice. Jour. Biol. Chem. 23: 181-230. 1915.

374. McCollum, E. V., and Davis, M. The essential factors of diet during growth. Jour. Biol. Chem. 23: 231-246. 1915.

375. McCollum, E. V., and Simmonds, N. A Biological analysis of pellagra-producing diets. II. The minimum requirements of the two unidentified dietary factors for maintenance as contrasted with growth. Jour. Biol. Chem. 32: 181-194. 1917.

376. McCollum, E. V., and Simmonds, N. A biological analysis of pellagra-producing diets. III. The values of some seed proteins for maintenance. Jour. Biol. Chem. 32: 347-368. 1917.

377. McCollum, E. V., and Simmonds, N. A biological analysis of pellagra-producing diets. IV. The cause of failure of mixtures of seeds to promote growth in young animals. Jour. Biol. Chem. 33: 303-311. 1918.

378. McCollum, E. V., and Simmonds, N. The nursing mother as a factor of safety in the nutrition of the young. Amer. Jour. Physiol. 46: 275-313. 1918.

379. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary relationships between the proteins of certain seeds. Jour. Biol. Chem. 37: 155-178. 1919.

380. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary protein values in foods. II. Supplementary dietary relations between animal tissues and cereal and legume seeds. Jour. Biol. Chem. 47: 139-173. 1921.

381. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary protein values in foods. III. The supplementary dietary relations between the proteins of the cereal grains and the potato. Jour. Biol. Chem. 47: 175-206. 1921.

382. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary protein values in foods. IV. The supplementary relations of cereal grain with cereal grain; legume seed with legume seed; and cereal grain with legume seed; with respect to improvement in the quality of their proteins. Jour. Biol. Chem. 47: 207-234. 1921.

383. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary protein values of foods. V. Supplementary relations of the proteins of milk for those of cereals and of milk for those of legume seeds. Jour. Biol. Chem. 47: 235. 1921.

384. McCollum, E. V., Simmonds, N., and Pitz, W. The effects of feeding the proteins of the wheat kernel at different planes of intake. Jour. Biol. Chem. 28: 211-229. 1916.

385. McCollum, E. V., Simmonds, N., and Pitz, W. The vegetarian diet in the light of our present knowledge of nutrition. Amer. Jour. Physiol. 41: 333-360. 1916.

386. McCollum, E. V., Simmonds, N., and Pitz, W. The nature of the dietary deficiencies of the wheat embryo. Jour. Biol. Chem. 25: 105-131. 1916.

387. McCollum, E. V., Simmonds, N., and Pitz, W. Is lysine the limiting amino acid in the protein of wheat, maize or oats? Jour. Biol. Chem. 28: 483-500. 1916-17.

388. McCollum, E. V., Simmonds, N., and Pitz, W. The nature of the dietary deficiencies of the oat kernel. Jour. Biol. Chem. 29: 341-354. 1917.

389. McCollum, E. V., Simmonds, N., and Pitz, W. The supplementary dietary relationship between leaf and seed as contrasted with combinations of seed with seed. Jour. Biol. Chem. 30: 13-32. 1917.

390. McHenry, E. W. Observations on the nutritive value of bread. Canad. Jour. Pub. Health 31: 428. 1940.

391. McLaughlan, J. M., and Morrison, A. B. Evaluation of protein quality in mixed foods. Canad. Jour. Biochem. Physiol. 38: 1378-1380. 1960.

392. Madden, S. C., and Whipple, G. H. Plasma proteins: Their source, production and utilization. Physiol. Rev. 20: 194-217. 1940.

393. Marais, J. S. C., and Smuts, D. B. The biological value of the proteins of oats, barley, wheat bran and pollard. Onderstepoort Jour. Vet. Sci. Anim. Ind. 15: 205-210. 1940.

394. Markuze, Z. Biological value of the proteins of certain cereals. Biochem. Jour. 31: 1973-1977. 1937.

395. Mauron, J:, and Mottu, F. Sweetened condensed vs evaporated milk in improving the protein efficiency of wheat flour. Jour. Agr. Food Chem. 10: 512-515. 1962.

396. Meiss, A. N., Cotton, R. H., Baldwin, R. R., and Howard, H. W. Effect of nutritive improvement of bread on growth. Jour. Amer. Dietet. Assoc. 48: 409-413. 1966.

397. Melnick, D., and Cowgill, G. R. The protein minima for nitrogen equilibrium with different proteins. Jour. Nutr. 13: 401-424. 1937.

398. Mendel, L. B., and Fine, M. S. Studies in nutrition. I. The utilization of the proteins of wheat. Jour. Biol. Chem. 10: 303-325. 1911.

399. Metta, V. C., and Johnson, B. C. Biological value of gamma-irradiated corn protein and wheat gluten. Jour. Agr. Food Chem. 7: 131. 1939.

400. Meyers, V. C., Remp, D. G., and Bing, F. C. Hemoglobin production in rats on diets containing bread. Cereal Chem. 12: 372-376. 1935.

401. Milner, C. K. The nutritionally available lysine and methionine in bulgur. In Nutrition, Proc. of the VI Internatl. Cong, Edinburg, pp. 491. 1963.

402. Milner, C. K. The effect of mild cooking on the nutritive value of wheat. Proc. Nutr. Soc. 1: 5-6. 1965.

403. Milner, C. K., and Woodforde, J. The effect of heat in drying on the nutritive value of wheat for animal feed. Jour. Food Sci. Agr. 16: 369-373. 1965.

404. Mitchell, H. H. The nutritive value of proteins. Physiol. Rev. 4: 424-478. 1925.

405. Mitchell, H. H., and Beadles, J. R. Biological values of six partially purified proteins for the adult albino rat. Jour. Nutr. 40: 25-40. 1950.

406. Mitchell, H. H., and Block, R. J. Some relationships between the amino acid contents of proteins and their nutritive values for the rat. Jour. Biol. Chem. 163: 599-620. 1946.

407. Mitchell, H. H., and Carmen, G. G. Biological value of nitrogen of mixtures of patent white flour and animal foods. Jour. Biol. Chem. 68: 183-215. 1926.

408. Mitchell, H. H., Hamilton, T. S., and Shields, J. B. The contribution of nonfat milk solids to the nutritive value of wheat breads. Jour. Nutr. 25: 585-603. 1943.

409. Mitchell, H. H., and Smuts, D. B. The amino acid deficiencies of beef, wheat, corn, oats, and soybeans for growth of the white rat. Jour. Biol. Chem. 95: 263-282. 1932.

410. Moran, T. Nutritional significance of recent work on wheat, flour, and bread. Nutr. Abs. Rev. 29: 1-16. 1959.

411. Moran, T., and Pace, J. Digestibility of high extraction wheat meals. Nature 150: 224-226. 1942.

412. Morgan, A. F., and King, F. B. Changes in biological value of cereal due to heat treatment. Proc. Soc. Expt. Biol. Med. 23: 353-355. 1926.

413. Morgan, A. F., King, F. B., Boyden, R. E., and Petro, V. A. The effect of heat upon the biological value of cereal proteins and casein. Jour. Biol. Chem. 90: 771-792. 1931.

414. Muramatsu, K., and Ashida, K. Influence of varying levels of different dietary proteins on growth rate, liver xanthine oxidase and succinic dehydrogenase of young rats. Jour. Nutr. 79: 365-372. 1963.

415. Murphy, J. C., and Jones, D. B. Proteins of wheat bran. III. The nutritive properties of the proteins of wheat bran. Jour. Biol. Chem. 69: 85-99. 1926.

416. Murty, G. S., and Austin, A. Studies on the quality characters of India wheat with reference to the mixability of their flour with the flours of other food grains and tubers for making chapaties. Food Sci. (Mysore) 12: 64-68. 1963.

417. Nath, N., Harper, A. E., and Elvehjem, C. A. Dietary protein and serum cholesterol. Arch. Biochem. Biophys. 77: 234-236. 1958.

418. Nath, N., Harper, A. E., and Elvehjem, C. A. Diet and cholesteremia. III. Effect of dietary proteins with particular reference to the lipids in wheat gluten. Canad. Jour. Biochem. Physiol. 37: 1375-1384. 1959.

419. Njaa, L. R. Weight maintenance and protein intake of the young rat. Brit. Jour. Nutr. 19: 443-457. 1965.

420. Oltjen, R. R., Putnam, P. S., Williams, E. E., and Davis, R. E. Wheat versus corn in all-concentrate cattle rations. Jour. Anim. Sci. 25: 1000-1004. 1966.

421. Osborne, T. B., and Mendel, L. B. The role of gliadin in nutrition. Jour. Biol. Chem. 12: 473-510. 1912.

422. Osborne, T. R., and Mendel, L. B. Amino acids in nutrition and growth. Jour. Biol. Chem. 17: 325-349. 1914.

423. Osborne, T. B., and Mendel, L. B. The amino acid minimum for maintenance and growth, as exemplified by further experiments with lysine and tryptophan. Jour. Biol. Chem. 25: 1-12. 1916.

424. Osborne, T. B., and Mendel, L. B. The nutritive value of the wheat kernel and its milling products. Jour. Biol. Chem. 37: 557-606. 1919.

425. Osborne, T. B., Mendel, L. B., and Ferry, E. L. A method of expressing numerically the growth-promoting value of proteins. Jour. Biol. Chem. 37: 223-229. 1919.

426. Parks, V. B., Hewston, E. M., Marshall, M. W., and Bruinooge, A. M. Developing breads of higher nutritive value. Jour. Amer. Dietet. Assoc. 30: 245. 1954.

427. Patton, A. R. Present status of heat-processing damage to protein foods. Nutr. Rev. 8: 193-196. 1950.

428. Patwardhan, V. N., and Ramachandran, M. Vegetable proteins in nutrition. Sci. and Culture 25: 401-409. 1960.

429. Phansalkar, S. V. Nutritive evaluation of vegetable proteins. In Proc. Symposium on Proteins, Central Food Tech. Res. Inst. pp. 1-9, 345. (Mysore). 1961.

430. Phansalkar, S. V., Ramachandran, M., and Patwardhan, V. N. Nutritive value of vegetable proteins. I. Protein efficiency ratios of cereals and pulses and the supplementary effect of the addition of a leafy vegetable. Indian Jour. Med. Res. 45: 611-621. 1957.

431. Phansalkar, S. V., Ramachandran, M., and Patwardhan, V. N. Nutritive value of vegetable proteins. II. The effect of vegetable protein diets on the regeneration of hemoglobin and plasma proteins in protein depleted rats. Indian Jour. Med. Res. 46: 333-344. 1958.

432. Pol, G., and den Hartog, C. The dependence on protein quality of the protein-to-calorie ratio in a freely selected diet and the usefulness of giving protein and calories separately in protein evaluation experiments. Brit. Jour. Nutr. 20: 649-661. 1966.

433. Prier, R. F., and Derse, P. H. Nutritive value of a vegetable protein mixture. Jour. Amer. Dietet. Assoc. 33: 1034-1037. 1957.

434. Radhakrishna Rao, M. V. Intestinal changes in monkeys fed on poor rice diets (vs wheat). Indian Jour. Med. Res. 30: 273-284. 1942.

435. Rama Rao, P. B., Norton, H. W., and Johnson, B. C. The amino acid composition and nutritive value of proteins. V. The amino acid requirements as a pattern for protein evaluation. Jour. Nutr. 88: 88-92. 1964.

436. Rao, M. N., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. Nutritive value of certain cereals and cereal diets consumed in India. Food Sci. (Mysore) 10: 163-175. 1961.

437. Rao, M. N., and Morrison, A. B. Evaluation of protein in foods. XII. Effects of caloric restriction. Canad. Jour. Biochem. 44: 1365-1375. 1966.

438. Reese, N. A., Muggenburg, B. A., Kawalczyk, T., Hoekstra, W. G., and Gummer, R. H. Effects of corn, wheat, oats, and alfalfa leaf meal on the development of gastric ulcers in swine. Jour. Anim. Sci. 25: 21-24. 1966.

439. Reen, Von R. Utolithiasis in the rat. III. Effect of proteins, carbohydrate and phosphate on the occurrence of calcium citrate stones. Jour. Nutr. 77: 137-141. 1962.

440. Riggs, L. K., Beaty, A., and Johnson, A. H. Influence of nonfat milk solids on the nutritive value of bread. Jour. Dairy Sci. 29: 821-829. 1946.

441. Robscheit-Robbins, F. S., and Whipple, G. H. Dietary effects on anemia plus hypoproteinemia in dogs. II. The findings with milk, wheat, and peanut flours as compared with liver. Jour. Expt. Med. 89: 359-368. 1949.

442. Roehm, R. R., and Mayfield, H. L. Effect of several low protein diets on the serum iron, total iron-binding capacity and serum cholesterol of rats. Jour. Nutr. 81: 131-138. 1963.

443. Rogers, Q. R., and Harper, A. E. Protein digestion: Nutritional and metabolic considerations. World Rev. Nutr. Dietet. 6: 250-291. 1966.

444. Rosenberg, H. R. Supplementation of food with amino acids. Jour. Agr. Food Chem. 7: 316-321. 1959.

445. Rosenberg, H. R., and Rohdenburg, E. L. The fortification of bread with lysine. I. The loss of lysine during baking. Jour. Nutr. 45: 593-598. 1951.

446. Rosenberg, H. R., and Rohdenburg, E. L. The fortification of bread with lysine. II. The nutritional value of fortified bread. Arch. Biochem. Biophys. 37: 461-468. 1952.

447. Rosenberg, H. R., Rohdenburg, E. L., and Baldini, J. T. The fortification of bread with lysine. III. Supplementation with essential amino acids. Arch. Biochem. Biophys. 49: 263-267. 1954.

448. Rosenberg, H. R., Rohdenburg, E. L., and Eckert, R. E. Supplementation of bread protein with lysine and threonine. Jour. Nutr. 72: 423-428. 1960.

449. Rubner, M. Die Verdaulichkeit von Spelzmehl beim Hunde. Arch. f. Anat. u. Physiol.-Physiol. Abtg. Jahr. 1916: 93-100. 1917.

450. Ruegamer, W. R., Poling, C. E., and Lockhart, H. B. An evaluation of the protein qualities of six partially purified proteins. Jour. Nutr. 40: 231-241. 1950.

451. Russell, W. C. The addition of raw beef or meat scrap to a wheat milk diet. Jour. Nutr. 5: 347-357. 1932.

452. Sabistin, A. R., and Kennedy, B. M. Effect of baking on the nutritive value of proteins in wheat bread with and without supplement of nonfat dry milk and lysine. Cereal Chem. 34: 94-110. 1957.

453. Salmon, W. B. Relative potency of diets containing amino acids and proteins for promoting growth in rats. Jour. Nutr. 82: 76-82. 1964.

454. Sanahuja, J. C., Lede, M. N., and Rio, M. E. Effect of amino acid imbalance on nutritive value of supplemented proteins. (Abstract) Fed. Proc. 23: 879. 1964.

455. Schneider, H. A. Dietary proteins compared in their capacity to increase susceptibility to infection. (Abstract) Fed. Proc. 25: 675. 1966.

456. Seeley, R. D., Ziegler, H. F., and Summer, R. J. The nutritional value of white bread containing nonviable dried yeast. Cereal Chem. 27: 50-60. 1950.

457. Sell, J. L. Low protein, wheat-soybean meal rations for laying hens. Poultry Sci. 43: 1360-1361. 1964.

458. Sherman, H. C., and Campbell, H. L. Growth and reproduction upon simplified food supply. IV. Improvement in nutrition resulting from an increased proportion of milk in the diet. Jour. Biol. Chem. 60: 5-15. 1924.

459. Sherman, H. C., and Campbell, H. L. Further experiments on the influence of food upon longevity. Jour. Nutr. 2: 415-417. 1930.

460. Sherman, H. C., and Campbell, H. L. Nutritional well-being and length of life as influenced by different enrichments of an already adequate diet. Jour. Nutr. 14: 609-620. 1937.

461. Sherman, H. C., Campbell, H. L., and Ragan, M. S. Analytical and experimental study of the effects of increased protein with liberal calcium and riboflavin intakes: Complete life cycles. Jour. Nutr. 37: 317-328. 1949.

462. Sherman, H. C., Pearson, C. S., and Bal, M. E. Quantitative effects of protein enrichment of diet upon growth and early adult life. Proc. Natl. Acad. Sci. 36: 106-109. 1950.

463. Sherman, H. C., Rouse, M. E., Allen, B., and Woods, E. Growth and reproduction upon simplified food supply. I. Jour. Biol. Chem. 46: 503-519. 1921.

464. Shils, M. E., Friedland, I., and Stewart, W. B. The rapid development of portal fatty liver in rats consuming various plant materials. Proc. Soc. Expt. Biol. Med. 87: 473-476. 1954.

465. Shyamala, G. The isolation and purification of a trypsin inhibitor for whole wheat flour. Diss. Abst. 25: 1544. 1964.

466. Shyamala, G., and Kennedy, B. M. Protein value of chapatis and puris. Jour. Amer. Dietet. Assoc. 41: 115-118. 1962.

467. Sidransky, H. Chemical pathology of nutritional deficiency induced by certain plant proteins. Jour. Nutr. 71: 387-395. 1960.

468. Sirinit, R., Solomon, A. G. M., Van Loo, A. T., and King, K. W. Nutritional value of Haitian cereal-legume blends. Jour. Nutr. 86: 415-423. 1965.

469. Slack, E. B. Composition of rats fed on diets containing wheat flours of different percentage extraction. Brit. Jour. Nutr. 2: 214. 1948-49.

470. Stare, F. J., and Hegsted, D. M. The nutritive value of wheat germ, corn germ and oat proteins. Fed. Proc. 3: 120-123. 1944.

471. Subrahmanyan, V., Joseph, K., Rao, M. N., Rajagopalan, R., Bhatia, D. S., Sankaran, A. N., and Swaminathan, M. Studies on the nutritive value of a blend of whole wheat flour, tapioca flour and low fat groundnut flour (Paushtik atta). Food Sci. (Mysore) 9: 303-305. 1960.

472. Subrahmanyan, V., Murthy, H. B. N., and Swaminathan, M. Effects of partial replacement of rice, wheat or ragi (Eleusine corcana) by tuber flours on the nutritive value of poor vegetarian diets. Brit. Jour. Nutr. 8: 1-10. 1954.

473. Sugahara, T., and Sugahara, N. (On the possibility oi measuring the nutritive value of food protein through a rat's liver enzyme activity. I. About the reciprocity between activity of rat's liver enzyme and growth of weanling rat.) Jour. Jap. Nutr. 21: 155-160. 1963.

474. Sugahara, T., and Sugahara, N. (On the possibility of measuring the nutritive value of food protein through a rat's liver enzyme activity. II. On the measurement of nutritive value of various kinds of food protein by using a rat's liver enzyme activity as a criterion.) Jour. Jap. Nutr. 21: 161-166. 1963.

475. Sugahara, T., Machida, A., and Sugahara, N. (On the possibility of measuring the nutritive value of food protein through a rat's liver enzyme activity. III. About the reciprocity between activity of rat's liver enzyme and the amino acid composition of food proteins.) Jour. Jap. Nutr. 22: 121-124. 1964.

476. Sur, G., Reddy, S. K., Swaminathan, M., and Subrahmanyan, V. Supplementary value of food yeast (Torula utilis) to poor vegetable diets based on cereals. Bul. Central Food Tech. Res. Inst. 3: 111. 1954.

477. Sur, G., Reddy, S. K., Swaminathan, M., and Subrahmanyan, V. Supplementary value of proteins of food yeast to cereal proteins. Bul. Central Food Tech. Res. Inst. 4: 35-36. 1954.

478. Sure, B. Nutritional improvement of cereal flours and cereal grains. Jour. Amer. Dietet. Assoc. 22: 494-502. 1946.

479. Sure, B. Relative efficiency of the proteins in polished rice and in enriched wheat flour. Proc. Soc. Expt. Biol. Med. 61: 342-343. 1946.

480. Sure, B. Further studies on nutritional improvement of cereal flours with yeast. Jour. Amer. Dietet. Assoc. 23: 113-119. 1947.

481. Sure, B. The nature of the supplementary value of the proteins in milled corn meal and milled wheat flour with dried food yeasts. Jour. Nutr. 36: 59-63. 1948.

482. Sure, B. Relative supplementary values of dried food yeasts, soybean flour, peanut meal, dried nonfat milk solids and dried buttermilk to the proteins in milled cornmeal and milled enriched wheat flour. Jour. Nutr. 36: 65-73. 1948.

483. Sure, B. Nutritional improvement of cereal grains with small amounts of foods of high protein content. Ark. Agr. Expt. Sta. Bul. 493, 62 pp. 1950.

484. Sure, B. Nutritional values of proteins in various cereal breakfast foods. Food Res. 16: 161-165. 1951.

485. Sure, B. Influence of lysine, valine and threonine additions to the efficiency of the proteins of whole wheat. Arch. Biochem. Biophys. 39: 463-464. 1952.

486. Sure, B. Improvement in protein efficiency of a whole wheat cereal breakfast food with the amino acids lysine, threonine and vitamin B_{12}. Arch. Pediat. 69: 359-365. 1952.

487. Sure, B. Protein supplementation. Relationships between milled rice and milled flour and between milled rice and milled white cornmeal. Jour. Agr. Food Chem. 1: 1207-1208. 1953.

488. Sure, B. Improving the nutritive value of cereal grains. I. Improvement in the efficiency of the proteins in milled wheat flour with lysine, valine, threonine, and an extract from condensed fish solubles. Jour. Nutr. 50: 235-244. 1953.

489. Sure, B. Relative nutritive values of protein in whole wheat and whole rye and effect of amino acid supplement. Jour. Agr. Food Chem. 2: 1108-1110. 1954.

490. Sure, B. Influence of processing on supplementary value of vitamin B_{12} and amino acids to proteins in whole wheat. Jour. Agr. Food Chem. 2: 1111-1113. 1954.

491. Sure, B. Effect of amino acid and vitamin B_{12} supplements on the biologic value of proteins in rice and wheat. Jour. Amer. Dietet. Assoc. 31: 1232-1234. 1955.

492. Sure, B., and House, F. The relative biological value of the proteins in cereal grains. Jour. Nutr. 36: 595-600. 1948.

493. Swaminathan, M. Relative value of proteins of certain foodstuffs in nutrition. IV. Supplementary values; studied by balance sheet method using adult rats, and growth method using young rats. Indian Jour. Med. Res. 25: 399-426. 1937.

494. Swaminathan, M. The relative value of the proteins of certain foodstuffs in nutrition. VI. General conclusions. Indian Jour. Med. Res. 26: 113-118. 1938.

495. Swaminathan, M. The nicotinic acid content of the tissues of monkeys fed on wheat, maize and rice diets. Indian Jour. Med. Res. 28: 91-99. 1940.

496. Tagle, M. A., and Donoso, G. The long term effects of feeding a casein and a gluten diet of the same protein value of rats. (Abstract) VII Internatl. Cong. Nutr., Hamburg, p. 208. 1966.

497. Taka, M. M. Phytic acid distribution in foodstuffs. Its relation to calcium and total phosphorus. Jour. Egyptian Med. Assoc. 37: 629-637. 1954.

498. Taka, M M., and El Towesy, Y. A. The problem of calcium in the Egyptian bread. Alexandria Med. Jour. 4: 410-415. 1958.

499. Tamura, E., Matsuno, M., and Nakatsu, M. Effects of lysine supplementation to cereal proteins on free threonine levels of plasma and liver in rats. Ann. Rpt. Natl. Inst. Nutr. (Tokyo), pp. 6-9. 1965.

500. Tamura, E., Matsuno, N., and Niizeki, S. The availability of lysine from cereals. II. The availability of lysine from rice, wheat flour and barley by using the growth of weanling rats. Ann. Rpt. Natl. Inst. Nutr. (Tokyo), pp. 9-10. 1963.

501. Tamura, E., Niizeki, S., Matsuno, N., and Kobatake, Y. The availability of lysine from cereals and wheat flour by estimation of fecal excreted lysine. Ann. Rpt. Natl. Inst. Nutr. (Tokyo), pp. 7-8. 1963.

502. Tasker, P. K., Rao, M. N., and Swaminathan, M. Supplementary value of a processed protein food based on a blend of coconut meal, groundnut flour and Bengal gram flour to poor Indian diets based on different cereals and millets. Jour. Nutr. and Dietet. (India) 1: 95-97. 1964.

503. Tekeli, S. T. Preparation and composition of the Turkish dry soup "tarhana" (wheat-containing). (Abstract) II Internatl. Cong. Food Sci. Tech., Warsaw, Poland, p. 492. 1966.

504. Thomas, B., Ketz, H. A., Tanger, L., and Erhardt, V. Effect of different bread diets on development of growing albino rat. Nahrung. 7: 347-366. 1963.

505. Tkachuk, R. Note on the nitrogen-to-protein conversion factor for wheat flour. Cereal Chem. 43: 223-225. 1966.

506. Trzebska-Jeske, I., Bartnik, J., Mochnacka, H., and Lipinska, I. Nutritive value of some Polish breads with special reference to protein value. (Abstract) II Internatl. Cong. Food Sci. and Tech., Warsaw, Poland, p. 500. 1966.

507. Vandermeers, A. Robberecht, P., Rathe, J., and Christophe, J. (Effect of deficiency of lysine on the content of hydrolases in the pancreas and small intestine of the rat.) Bul. Soc. Chim. Biol. 48: 133-153. 1966.

508. Vars, H. M., and Gurd, F. N. Effect of dietary protein upon the regeneration of liver protein in the rat. Amer. Jour. Physiol. 151: 399-404. 1947.

509. Venkat Rao, S., Gopalakrishna Rao, N., Bains, G. S., Bhatia, D. S., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Studies on enriched tapioca macaroni products. II. Effect of processing on the protein efficiency ratio. Food Sci. (Mysore) 10: 381-383. 1961.

510. Venkat Rao, S., Gopalakrishna Rao, N., Bains, G. S., Bhatia, D. S., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Studies on enriched tapioca macaroni products. IV. Effect of partial replacement of rice on the nutritive value of poor rice diet. Food Sci. (Mysore) 10: 386-389. 1961.

511. Venkat Rao, S., Joseph, A. A., Swaminathan, M., and Parpia, H. A. B. Amino acid supplementation as a means of improving the quality and overcoming shortage of protein in developing countries. Jour. Nutr. Dietet. (India) 1: 192-200. 1964.

512. Venkatachalam, P. S., and Ramanathan, K. S. Effect of protein deficiency during gestation and lactation on body weight and composition of offspring. Jour. Nutr. 84: 38-42. 1964.

513. Vijayaraghavan, P. K. The hemopoietic activity of some food proteins. Indian Jour. Med. Res. 43: 569-574. 1955.

514. Vijayaraghavan, P. K., and Patwardhan, V. N. Influence of poor rice diet on livers of albino rats. Indian Jour. Med. Sci. 6: 696-707. 1952.

515. Voltz, F. E., Forbes, R. M., Nelson, W. L., and Loosli, J. K. The effect of soya flour on the nutritive value of the proteins of white bread. Jour. Nutr. 29: 269-275. 1945.

516. Wagle, D. S., and Sreenivasan, A. Utilization of a vegetable protein dietary by the growing rat as influenced by folic acid and B_{12} supplementation. Food Sci. (Mysore) 10: 201-206. 1961.

517. Walker, A. R. P. The absorption of fat during consumption of diets rich in whole grain and whole breads. Jour. Hyg. 46: 194-197. 1948.

518. Walker, A. R. P., Irving, J. T., and Fox, F. W. Nutritional values of high extraction wheat meals. Nature 157: 769. 1946.

519. Wang, H. L., and Hesseltine, C. W. Wheat tempeh. Cereal Chem. 43: 563-570. 1966.

520. Weech, A. A. Dietary protein and regeneration of serum albumin. IV. The potency values of dried beef serum, whole egg, cow's milk, cow's colostrum, lactabumin, wheat gluten. Bul. Johns Hopkins Hospital 70: 157-176. 1942.

521. Westerman, B. D., and Hall, G. Improving the nutritive value of flour. I. Effect of supplementing enriched flour with other B-complex vitamins. Jour. Nutr. 33: 301-312. 1947.

522. Westerman, B. D., Hays, B., and Schoneweis, B. Improving the nutritive value of flour. VII. Supplementing the protein in flour with amino acids. Jour. Nutr. 61: 137-148. 1957.

523. Westerman, B. D., Kannarr, J., and others. Improving the nutritive value of flour. VIII. Lysine, tryptophan, valine and methionine as supplements to the protein in flour. Jour. Nutr. 151-162. 1957.

524. Westerman, B. D., Linn, D. R., Templeton, F., and Wells, R. I. Improving the nutritive value of flour. III. The use of enriched and non-enriched flour in diets similar to those consumed by certain low-income groups in South Carolina. Jour. Nutr. 38: 421-434. 1949.

525. Westerman, B. D., Oliver, B., and May, E. Improving the nutritive value of flour. VI. A comparison of the use of soya flour and wheat germ. Jour. Nutr. 54: 225-236. 1954.

526. Westerman, B. D., Roach, F., and Stone, M. Improving the nutritive value of flour. V. The effect of the use of defatted wheat germ. Jour. Nutr. 47: 147-158. 1952.

527. Westerman, B. D., and Stone, M. Improving the nutritive value of flour. IV. The significance of the use of enriched flour in the diet. Jour. Nutr. 44: 313-325. 1951.

528. Westerman, B. D., and Templeton, F. Improving the nutritive value of flour. II. Effect of supplementing enriched flour with B-complex vitamins and some observations on the use of 80 percent extraction flour. Jour. Nutr. 36: 187-203. 1948.

529. Wheeler, R., and Biester, A. A study of the nutritive value of some proprietary infant foods. Amer. Jour. Dis. Child. 7: 169-183. 1914.

530. Whipple, G. H. Hemoglobin construction within the body as influenced by diet factors. Amer. Jour. Med. Sci. 175: 721-733. 1928.

531. Whipple, G. H. Hemoglobin regeneration as influenced by diet and other factors. Jour. Amer. Med. Assoc. 104: 791-793. 1935.

532. Whipple, G. H., and Robscheit-Robbins, F. S. Control basal diets in anemic dogs. Method factors and hemoglobin production. Amer. Jour. Physiol. 115: 651-661. 1936.

533. Womack, M., Marshall, M. W., and Hildebrand, H. E. Utilization of wheat gluten by adult rats of two ages. Jour. Gerontol. 19: 45-48. 1964.

534. Woods, R. The utilization of dietary protein. Protein supplementation. Borden's Rev. Nutr. Res. 11: 39-50. 1950.

535. Yang, S. P., and Christian, J. H. Supplemental value of turkey protein for wheat. Jour. Amer. Dietet. Assoc. 42: 414-417. 1963.

536. Yoshida, A. Basic studies on amino acid balance in food proteins. Ann. Rpt. Tanabe Amino Acid Res. Foundation, Osaka, Japan, p. 11. 1966.

Human Studies

1. Autret, M., Le Riz. In Nutrition et alimentation tropicales, FAO, Rome, Vol. 1, pp. 606-629. 1957.

2. Aykroyd, W. R., and Krishnan, B. G. The effect of skimmed milk, soyabean and other foods in supplementing typical Indian diets. Indian Jour. Med. Res. 24: 1093-1106. 1937.

3. Aykroyd, W. R., and Krishnan, B. G. Diet surveys in South Indian villages. Indian Jour. Med. Res. 24: 667-688. 1937.

4. Aykroyd, W. R., and Krishnan, B. G. The deficiencies of the South Indian diet. Indian Jour. Med. Res. 25: 367-372. 1937.

5. Aykroyd, W. R., Krishnan, B. G., Passmore, R., and Sundararajan, A. R. The rice problem in India. Indian Med. Res. Memo. 32: 84 pp. ICMR. 1940.

6. Baptist, N. G., and De Mel, B. V. Growth and amino acid intakes on a cereal legume vegetable diet. Brit. Jour. Nutr. 9: 156-170. 1955.

7. Basu, K. P. Studies on protein, fat and mineral metabolism in Indians. Spec. Rpt., Indian Res. Found. Assoc. No. 15: 64 pp. 1946.

8. Basu, K. P., Basak, M. N., and De, H. N. Studies in human nutrition. III. Protein, calcium and phosphorus metabolism with typical Indian dietaries. Indian Jour. Med. Res. 29: 105-117. 1941.

9. Basu, K. P., Basak, M. N., and Sircan, B. C. R. Studies in human metabolism. II. Calcium and phosphorus metabolism in Indians on rice and on wheat diets. Indian Jour. Med. Res. 27: 471-499. 1939.

10. Bray, B. Nitrogen metabolism in West African children. Brit. Jour. Nutr. 7: 3-12. 1953.

11. Chen, S. C., Kies, C. V., and Fox, H. M. Nitrogenous factors affecting nutritional value of rice protein for human adults. (Abstract) Fed. Proc. 25: 300. 1966.

12. Cullumbine, H. Nitrogen balance studies on rice diets. Brit. Jour. Nutr. 4: 129-134. 1950.

13. Cullumbine, H., Basnayake, V., Lemotte, J., and Wickramanayake, T. W. Mineral metabolism on rice diets. Brit. Jour. Nutr. 4: 101-111. 1950.

14. Currens, J. H., Reid, E. A., MacLachlan, E. A., and Simione, F. A. Metabolic effects of the rice diet in the treatment of hypertension. New England Jour. Med. 245: 354-358. 1957.

15. De, H. N. Copper and manganese metabolism with typical Indian dietaries and assessment of their requirement for Indian adult. Indian Jour. Med. Res. 37: 301-309. 1949.

16. De, H. N., and Basu, K. P. Mutual influence of minerals in metabolism. Indian Jour. Med. Res. 37: 213-231. 1949.

17. De Maeyer, E. M., and Vanderborght, H. A study of the nutritive value of proteins from different sources in the feeding of African children. Jour. Nutr. 65: 335-352. 1958.

18. Desikachar, H. S. R., De, S. S., and Subrahmanyan, V. Protein value of soya-bean milk (as supplement to rice). Human feeding experiments. Indian Jour. Med. Res. 36: 145-148. 1948.

19. Doraiswamy, T. R., Parthasarathy, H. N., Tasker, P. K., Sankaran, A. N., Rajagopalan, R., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Effect of supplementary groundnut flour fortified with vitamins and minerals on the growth and nutritional status of children subsisting on a poor Indian diet based on rice. Food Sci. (Mysore) 11: 186-189. 1962.

20. Flodin, N. W. Amino acids and proteins, their place in human nutrition problems. Agr. Food Chem. 1: 222-235. 1953.

21. Gopalan, C. A report of some recent studies on protein malnutrition in India. In Progress in Meeting Protein Needs of Infants and Preschool Children. Natl. Acad. Sci.-Natl. Res. Council, Pub. 843, pp. 211-225. 1961.

22. Gopalan, C., and Rao, B. S. N. Effect of protein depletion on urinary nitrogen excretion in undernourished human subjects. Jour. Nutr. 90: 213-218. 1966.

23. Goyco, J. A. Nitrogen balance of young adults consuming a deficient diet supplemented with Torula yeast and other nitrogenous products. Jour. Nutr. 69: 49-57. 1959.

24. Hegsted, D. M. Protein requirement in man. (Symposium paper.) Fed. Proc. 18: 1130-1136. 1959.

25. Hickman, R. L. Is there an undiscovered factor in rice that prevents hypertensive cardiovascular disease? Jour. Ark. Med. Soc. 56: 438-447. 1960.

26. Hundley, J. M. Enrichment of foods with protein. In Protein Nutrition. Ann. New York Acad. Sci. 69: 1042-1060. 1958.

27. Hundley, J. M., Sandstead, H. R., Sampson, A. G., and Whedon, D. Lysine, threonine and other amino acids as a supplement to rice diets in man: Amino acid imbalance. Amer. Jour. Clin. Nutr. 5: 316-326. 1957.

28. Hwang, W. K. Digestion and absorption rate of protein from some Korean diets in human subjects. Korean Jour. Med. 8: 59. 1963.

29. Irwin, M. I., Taylor, D. D., and Feeley, R. M. Serum lipid levels, fat, nitrogen and mineral metabolism of young men associated with kind of dietary carbohydrate. Jour. Nutr. 82: 338-342. 1964.

30. Ittyerah, T. R., Pereira, S. M., and Dumm, M. E. Serum amino acids of children on high and low protein intakes. Amer. Jour. Clin. Nutr. 17: 11-14. 1965.

31. Johnson, R. M., Deuel, H. J., Morehouse, M. G., and Mehl, J. W. The effect of methionine upon the urinary nitrogen in men at normal and low levels of protein intake. Jour. Nutr. 33: 371-387. 1947.

32. Joseph, K., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. The effects of partial or complete replacement of rice in poor vegetarian diets by ragi (Eleusine coracana) on the metabolism of nitrogen, calcium and phosphorus in children. Food Sci. (Mysore) 8: 11-12. 1959.

33. Joseph, K., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. V. The effect of partial or complete replacement of rice in poor vegetarian diets by ragi on the metabolism of nitrogen, calcium and phosphorus. Brit. Jour. Nutr. 13: 213-218. 1959.

34. Joseph, K., Rao, M. N., Ganapathy, S., Swaminathan, M., and Subrahmanyan, V. Metabolism of nitrogen calcium and phosphorus in children on poor diets based on husked, undermilled and milled raw rice. Food Sci. (Mysore) 7: 224-225. 1958.

35. Joseph, K., Rao, M. N., Ganapathy, S., Swaminathan, M., and Subrahmanyan, V. Studies on the nutritive value of rice and rice diets. II. Metabolism of nitrogen, calcium and phosphorus in children on poor vegetarian diets containing husked, undermilled and milled raw rice. Ann. Biochem. Expt. Med. 18: 51-58. 1958.

36. Joseph, K., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. III. The effect of a supplementary multipurpose food. Brit. Jour. Nutr. 11: 388-391. 1957.

37. Joseph, K., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. IV. The effect of replacing rice in the diet by tapioca macaroni on the metabolism of nitrogen, calcium and phosphorus. Brit. Jour. Nutr. 12: 429-432. 1958.

38. Joseph, K., Tasker, P. K., Rao, M. N., Sankaran, A. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Effect of supplementing a poor rice diet with groundnut protein isolate fortified with calcium and phosphorus in children. Food Sci. (Mysore) 11: 31-35. 1962.

39. Joseph, K., Tasker, P. K., Rao, M. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. The effect of supplements of peanut flour or peanut protein isolate fortified with calcium salts and vitamins or skim milk powder on the digestibility coefficient, biological value and net protein utilization of the proteins of poor Indian diets given to undernourished children. Brit. Jour. Nutr. 7: 13-18. 1963.

40. Kamalanathan, G., Sankari, L., and Devadas, R. P. The effect of supplementing a basal rice diet with wild green leafy vegetables on the retention of nitrogen, calcium and phosphorus in adolescent girls. Jour. Nutr. and Dietet. (India) 2: 37-41. 1965.

41. Karambelkar, P. V., Patwardhan, V. N., and Sreenivasan, A. Studies in protein metabolism: Creatinine excretion in urine in relation to sources of dietary protein. Indian Jour. Med. Res. 40: 89-93. 1952.

42. Kaye, R., Barness, L. A., Valyasevi, A., and Knapp, J. Nitrogen balance studies of plant proteins in infants. In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 297-312. 1961.

43. Kempner, W. Treatment of kidney disease and hypertensive vascular disease with rice diet. No. Carolina Med. Jour. 5: 125. 1944.

44. Kempner, W. Treatment of hypertensive vascular disease with rice diet. Amer. Jour. Med. 4: 545-577. 1948.

45. Kempner, W. Treatment of heart and kidney diseases and of hypertensive and arteriosclerotic vascular disease with the rice diet. Ann. Int. Med. 31: 821-856. 1949.

46. Kempner, W., Lesesne, J. M., Newborg, B., and Wicker, C. F. Sulfate and phosphate excretion in urine of patients on rice diet. Amer. Jour. Med. Sci. 216: 687-688. 1948.

47. Khandwala, P. K., Ambegaokar, S. D., Patel, S. M., and Rao, M. V. R. Studies in fermented foods. I. Nutritive value of idli. Jour. Sci. Ind. Res. 21C: 275-278. 1962.

48. Kurien, P. P., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. VI. The effect of partial or complete replacement of rice in poor vegetarian diets by kaffir corn (Sorghum vulgare). Brit. Jour. Nutr. 14: 339-345. 1960.

49. Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. VII. The effect of partial or complete replacement of rice in poor vegetarian diets by pearl millet (Pennisetum typhoidum). Brit. Jour. Nutr. 15: 345-347. 1961.

50. Lal, S. B. The effect of pressed groundnut cake flour in supplementing rice diets. Indian Jour. Med. Res. 40: 471-479. 1952.

51. Lind, H. E. Effect of a nutritional supplement (grain concentrate) in human cooked and raw diets on rat breeding. (Abstract) VII Internatl. Cong. Nutr., Hamburg, p. 298. 1966.

52. Lintzel, W. Von. (The quantity and quality of dietary protein for human subjects.) Deutsche Med. Wochenschrift. 80: 1047-1051. 1955.

53. Mathen, K. K. Rice diet and population trends. Indian Jour. Med. Res. 44: 491-499. 1956.

54. Mitra, K., and Verma, S. K. The biological value of the proteins of rice, pulse and milk fed in different proportions to human beings. Indian Jour. Med. Res. 35: 23-28. 1947.

55. Mitra, K., Verma, S. K., and Ahmed, S. Investigations on biological value of cereal mixtures in a rice eater's diet by human feeding trials. Indian Jour. Med. Res. 36: 261-270. 1948.

56. Miyamoto, T., Shinkai, T., Ikehata, H., and Murata, K. The availability of essential amino acids from rice. I. In vivo digestion studies. Rpt. Sci. Living 9: 7-18. 1961. (Osaka City, Japan).

57. Moorjani, M. N., and Subrahmanyan, V. The poor South Indian rice diet and its nutritional improvement. Bul. Cent. Food Tech. Res. Inst. (Mysore) 2: 160-164; 185-188. 1953.

58. Murthy, H. B. N., Reddy, S. K., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. I. Adaptation to low intake of calories, protein, calcium and phosphorus. Brit. Jour. Nutr. 9: 203-209. 1955.

59. Murthy, H. B. N., Swaminathan, M., and Subrahmanyan, V. Effects of partial replacement of rice in a rice diet by tapioca flour on the metabolism of nitrogen, calcium and phosphorus in adult human beings. Brit. Jour. Nutr. 8: 11-16. 1954.

60. Nicol, B. M., and Phillips, P. G. Reference groundnut flour (GNF) and reference dried skim milk (DSM) as supplements to the diets of Nigerian men and children. In Meeting Protein Needs of Infants and Children. Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 157-168. 1961.

61. Panemangalore, M., Parthasarathy, H. N., Sankaran, A. N., Joseph, K., Rao, M. N., and Swaminathan, M. The metabolism of nitrogen, digestibility coefficient and biological value of proteins and NPU in poor rice diet supplemented with methionine, fortified soya flour and skim milk powder. Canad. Jour. Biochem. 42: 641-650. 1964.

62. Parpia, H. A. B. Development of food mixes for preschool children in India. In Preschool Child Malnutrition, Primary Deterrent to Human Progress, Natl. Acad. Sci.-Natl. Res. Council Pub. 1282, pp. 181-212. 1966.

63. Parthasarathy, H. N., Joseph, K., Daniel, V. A., Doraiswamy, T. R., Sankaran, A. N., Rao, M. N., Swaminathan, A., Sreenivasan, A., and Subrahmanyan, V. The effect of supplementing a rice diet with lysine, methionine and threonine on the digestibility coefficient, biological value and net protein utilization of proteins and nitrogen retention in children. Canad. Jour. Biochem. 42: 385-394. 1964.

64. Parthasarathy, H. N., Panemangalore, M., Doraiswamy, T. R., Rao, M. N., Rajagopalan, R., and Swaminathan, M. Studies on a processed protein food based on a blend of groundnut flour and full fat soya flour fortified with essential amino acids, vitamins and minerals. V. Effect of supplementary protein food on the metabolism of nitrogen, calcium and phosphorus in undernourished children subsisting on a rice diet. Jour. Nutr. and Dietet. (India) 1: 91-94. 1964.

65. Parthasarathy, H. N., Panemangalore, M., Rao, M. N., Sankaran, A. N., and Swaminathan, M. Studies on a processed protein food based on a blend of groundnut flour and full-fat soya flour fortified with essential amino acids, vitamins and minerals. VI. The effect of supplementary protein food on the digestibility coefficient, biological value and net protein utilization of poor rice diet in undernourished children. Jour. Nutr. and Dietet. (India) 1: 173-177. 1964.

66. Parthasarathy, H. N., Tasker, P. K., Doraiswamy, T. R., Nataraja, N., Rajagopalan, R., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Effect of supplementary peanut flour fortified with vitamins and minerals on the retention of nitrogen, calcium and phosphorus in children subsisting on a rice diet. Food Sci. (Mysore) 11: 190-192. 1962.

67. Pasricha, S., Rao, N., Mohanuram, K., and Gopalan, C. Nitrogen balance studies on women in India. Jour. Amer. Dietet. Assoc. 47: 269-273. 1965.

68. Patwardhan, V. N. Nutritive value of cereal and pulse proteins. In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 201-210. 1961.

69. Patwardhan, V. N., Mukundan, R., Rama Sastri, B. V., and Tulpule, P. G. Studies in protein metabolism. Influence of dietary proteins on the urinary nitrogen excretion. Indian Jour. Med. Res. 37: 327-345. 1949.

70. Patwardhan, V. N., and Ramachandran, M. Vegetable proteins in nutrition. Sci. and Cult. 25: 401-409. 1960.

71. Phansalkar, S. V., and Patwardhan, V. N. Partition of urinary nitrogen in Indian adults. Relation between urea nitrogen and total nitrogen. Indian Jour. Med. Res. 42: 363-371. 1954.

72. Phansalkar, S. V., and Patwardhan, V. N. Utilization of animal and vegetable proteins: Urinary nitrogen excretion in absorptive and early post-absorptive phases. Indian Jour. Med. Res. 43: 265-276. 1955.

73. Phansalkar, S. V., and Patwardhan, V. N. Utilization of animal and vegetable proteins: Nitrogen balances at marginal protein intakes and the determination of minimum protein requirements for maintenance in young Indian men. Indian Jour. Med. Res. 44: 1-10. 1956.

74. Ramanamurthy, P. S. V., and Gopalan, C. Studies on thiamine excretions on raw and parboiled rice diets in human subjects. Indian Jour. Med. Res. 54: 208-213. 1966.

75. Rama Rao, G., Desikachar, H. S. R., and Subrahmanyan, V. The effect of the degree of polishing of rice on nitrogen and mineral metabolism in human subjects. Cereal Chem. 37: 71-78. 1960.

76. Rao, S. V., Swaminathan, M., and Parpia, H. A. B. Mutual supplementation of dietary proteins for meeting protein needs and overcoming protein shortage in developing countries. Jour. Nutr. and Dietet. (India) 1: 128-138. 1964.

77. Reddy, S. K., Doraiswamy, T. R., Sankaran, A. N., Swaminathan, M., and Subrahmanyan, V. Effect on the general health and nutritional status of children of partial replacement of rice in a poor vegetarian diet by tapioca flour. Brit. Jour. Nutr. 8: 17-21. 1954.

78. Reddy, S. K., Sur, G., Doraiswamy, T. R., Sankaran, A. M., Swaminathan, M., and Subrahmanyan, V. Effect of supplementary composite protein foods on the growth and nutritional status of school children. Indian Jour. Physiol. Allied Sci. 8: 26-33. 1954.

79. Sen, S. K., and others. Mysterious disease of Nadia. Indian Jour. Med. Assoc. 46: 115-120. 1966.

80. Senecal, J. The treatment and prevention of kwashiorkor in French West Africa. Ann. N. Y. Acad. Sci. 69: 916-953. 1958.

81. Shurpalekar, S. R., Daniel, V. A., Doraiswamy, T. R., Lahiry, N. I., Moorjani, M. N., and Swaminathan, M. The effect of a supplementary protein food containing fish flour (from sardine) on the metabolism of nitrogen, calcium and phosphorus in children. Indian Jour. Pediat. 30: 272-275. 1963.

82. Shurpalekar, S. R., Daniel, V. A., Moorjani, M. N., Lahiry, N. I., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. The effect of a supplementary protein food containing fish flour, groundnut flour, Bengal gram flour and fortified with vitamins on the digestibility coefficient, biological value and net protein utilization of poor rice diet given to undernourished children. Jour. Nutr. and Dietet. (India) 1: 19-24. 1964.

83. Starke, J. Effect of the rice diet on the serum cholesterol fractions of one hundred fifty-four patients with hypertensive vascular disease. Amer. Jour. Med. 9: 494. 1950.

84. Subrahmanyan, V., Bhagavan, R. K., Doraiswamy, T. R., Joseph, K., Bains, G. S., Bhatia, D. S., Sankaran, A. N., and Swaminathan, M. The effect of replacement of rice in a poor vegetarian diet by tapioca macaroni on the general health and nutritional status of children. Brit. Jour. Nutr. 12: 353-358. 1958.

85. Subrahmanyan, V., Joseph, K., Doraiswamy, T. R., Rao, M. N., Sankaran, A. N., and Swaminathan, M. The effect of a supplemental multipurpose food on the growth and nutritional status of school children. Brit. Jour. Nutr. 11: 382-388. 1956.

86. Subrahmanyan, V., Reddy, S. K., Moorjani, M. N., Sur, G., Doraiswamy, T. R., Sankaran, A. N., Bhatia, D. S., and Swaminathan, M. Supplementary value of vegetable milk curds in the diet of children. Brit. Jour. Nutr. 8: 348-352. 1954.

87. Subrahmanyan, V., Swaminathan, M., Bhatia, D. S., Bains, G. S., Sur, B., Bhagwan, R. K., Doraiswamy, T. R., Amandaswamy, G., and Sankaran, A. N. Effect of replacing rice in the diet by composite jowar (Sorghum vulgare) vermicelli on the health and nutritional status of children. Bul. Cent. Food Tech. Res. Inst. (Mysore) 3: 245-247. 1954.

88. Sur, G., Reddy, S. K., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phsophorus in undernourished children. II. The effect of supplementary groundnut milk curds on the metabolism of nitrogen, calcium and phosphorus. Brit. Jour. Nutr. 9: 210-214. 1955.

89. Swaminathan, M. The use of soyabean and its products in feeding infants and in the prevention of protein malnutrition in weaned infants and preschool children in developing countries. Jour. Nutr. and Dietet. (India) 3: 138-150. 1966.

90. Tasker, P. K., Doraiswamy, T. R., Rao, M. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Metabolism of nitrogen, calcium and phosphorus in undernourished children. VIII. The metabolism of nitrogen, calcium and phosphorus, and the digestibility coefficient and biological value of the proteins and the net protein utilization on poor Indian diets based on rice, maize or a mixture of rice and maize. Brit. Jour. Nutr. 16: 361-368. 1962.

91. Tasker, P. K., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. Effect of supplementing protein food containing coconut meal, peanut and Bengal gram flours on the metabolism of nitrogen, calcium and phosphorus in children subsisting on a poor rice diet. Ann. Biochem. Expt. Med. 19: 153-158. 1959.

92. Van Veen, A. G. The role of protein-rich foods in childhood nutrition. Symposium on Nutrition, XI Pacific Sci. Cong., Honlulu. (Abstract) Symposium papers 10: 412-413. 1964.

93. Vasantgadkar, P. S., and Tulpule, P. G. Influence of vegetable and animal protein diets of cellular and non-cellular origin on nitrogen metabolism in adults. Jour. Post. Grad. Med. 9: 6-14. 1963.

94. Venkatachlam, P. S., Srikantia, S. G., Mehta, G., and Gopalan, C. Treatment of nutritional oedemia syndrome (kwashiorkor) with vegetable diets. Indian Jour. Med. Res. 44: 539-545. 1956.

95. Watkins, D. M., Froeb, H. F., Hatch, F. T., and Gutman, A. B. Effects of diet in essential hypertension. II. Results with the unmodified Kemner rice diet in fifty hospitalized patients. Amer. Jour. Med. 9: 441. 1950.

96. Wikramanayake, T. W., de Silva, C. C., Fernando, P. V. D., and Jayawickrema, L. Lysine supplementation of rice and milk diet fed to children recovering from kwashiorkor and undernutrition. Amer. Jour. Clin. Nutr. 9: 625-631. 1961.

97. Woods, R. Nutrition in public health. I. The problem of rice eating populations in the Orient. Borden's Rev. Nutr. Res. 12: 115-126. 1951.

Experimental Animal Studies

98. Anonymous. Amino acid supplementation of rice. Nutr. Rev. 16: 46-48. 1958.

99. Anonymous. Milk and egg supplementation of rice. Nutr. Rev. 19: 175-177. 1961.

100. Acharya, B. N., Niyogi, S. P., and Patwardan, V. N. Balanced diets. III. Effect of parching on the biological value of the proteins of some cereals and pulses. Indian Jour. Med. Res. 30: 73-80. 1942.

101. Anandaswamy, B., and Date, W. B. Processing lucerne for edible purposes. Bul. Cent. Food Tech. Res. Inst. 5: 105-107. 1956.

102. Arulanatham, R. Supplementary effect of protein and amino acids with "poor" rice diet of South India. (Abstract) Fed. Proc. 13: 449. 1954.

103. Asenjo, C. F., and Goyco, J. A. Effect of supplementing polished rice and red kidney beans diet with amino acids. (Abstract) Fed. Proc. 13: 450. 1954.

104. Asuhnov, A. F. (Biological value of rice protein.) Vop. Pitan. 24: 19-21. 1965.

105. Aykroyd, W. R., and Krishnan, B. G. An investigation of cheap "well-balanced" diets. Indian Jour. Med. Res. 23: 731-739. 1936.

106. Balakrishnan, S., and Rajagopalan, R. Influence of some typical Indian diets on the intestinal flora and thiamine synthesis in rats. Indian Jour. Med. Res. 43: 31-38. 1955.

107. Barnes, R. M., Maack, J. E., Knights, M. J., and Burr, G. D. Measurement of growth promoting quality of dietary protein. Cereal Chem. 22: 273-296. 1945.

108. Basu, K. P., and Basak, M. N. Biochemical investigations on different varieties of Bengal rice. IV. Biological value of proteins of aman and aus rice and of their polishings, by the balance sheet and growth method. Indian Jour. Med. Res. 24: 1043-1066. 1937.

109. Basu, K. P., and Mukherjee, S. Biochemical investigations of different varieties of Bengal rice. III. Enzymic digestibility of rice starch and protein: Action of salivary and pancreatic amylase as well as of pepsin and trypsin. Indian Jour. Med. Res. 23: 777-787. 1936.

110. Baum, F. (Estimation of biological value of protein with tetrahymena pyriformis W. II. Protein value of different foods and feeds.) Nahrung 10: 453-459. 1966.

111. Bhatia, D. S., and Subrahmanyan, V. Rice substitutes. Food Sci. (Mysore) 8: 161-167. 1959.

112. Boas-Fixsen, M. A. The biological value of protein in nutrition. Nutr. Abst. Rev. 4: 447-459. 1935.

113. Bose, S. M., and Subrahmanyan, V. Component fatty acids of the liver-fat of albino rats receiving a high-fat rice diet. Bul. Cent. Food Tech. Res. Inst. (Mysore) 2: 236-237. 1953.

114. Bressani, R., Aguirre, A., Elias, L. G., Arroyave, R., Jarquin, R., and Scrimshaw, N. S. All-vegetable protein mixtures for human feeding. IV. Biological testing of INCAP vegetable mixture Nine in chicks. Jour. Nutr. 74: 209-216. 1961.

115. Bressani, R., Aguirre, A., and Scrimshaw, N. S. All-vegetable protein mixtures for human feeding. II. Nutritive value of corn, sorghum, rice and buckwheat substituted for lime-treated corn in INCAP vegetable mixture. Jour. Nutr. 69: 351-355. 1959.

116. Bressani, R., and Valiente, A. T. All-vegetable protein mixtures for human feeding. VII. Protein complementation between polished rice and cooked black beans. Jour. Food Sci. 27: 401-406. 1962.

117. Callison, E. C., Orent-Keiles, E., and Makower, R. U. The effect of some combinations of human foods on the growth and health of the laboratory rat. Jour. Nutr. 43: 131-152. 1951.

118. Chakrabarti, C. H., Saxena, K. L., and Nath, M. C. Effect of rice polishings concentrate on the nutritive value of some Indian pulses. Ann. Biochem. Expt. Med. 21: 237-240. 1961.

119. Chandrasekhara, M. R., Swaminathan, M., and Subrahmanyan, V. The supplementary value of a nutritionally balanced malt food to poor rice diet. Bul. Cent. Food Tech. Res. Inst. (Mysore) 5: 25-26. 1955-56.

120. Chapman, C. B., Gibbons, T., and Henschel, A. The effect of the rice-fruit diet on the composition of the body. New England Jour. Med. 243: 899-905. 1950.

121. Chaudhuri, R. N., Joseph, A. A., Sreenivas, H., Paul Jayaraj, A., Indiramma, K., Rao, M. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Nutritive value of poor Indian diets based on potato. Food Sci. (Mysore) 12: 258-262. 1963. (vs rice)

122. Chitre, R. G., and Vallury, S. M. Studies on the protein value of cereals and pulses. I. Effect of feeding on growth, blood hemoglobin and plasma proteins in young rats. Indian Jour. Med. Res. 44: 555-563. 1956.

123. Chitre, R. G., and Vallury, S. M. Studies on the protein value of cereals and pulses. II. Effect of feeding on total protein, fat, and glycogen content of livers in young rats. Indian Jour. Med. Res. 44: 565-571. 1956.

124. Dakshinamurti, K. Studies with a poor vegetarian rice diet. I. Effect of basal diet on the growth and liver composition of young albino rats. Ann. Biochem. Expt. Med. 19: 13-18. 1959.

125. Dakshinamurti, K. Studies with a poor vegetarian rice diet. II. Effect of supplements on the growth and fat deposition in the livers of young albino rats fed on the basal diet. Ann. Biochem. Expt. Med. 19: 23-26. 1959.

126. Dakshinamurti, K. Studies with a poor vegetarian rice diet. III. Chemical and morphological changes induced in livers of mature albino rats fed basal diets for long periods. Ann. Biochem. Expt. Med. 19: 75-82. 1959.

127. Daniel, V. A., Leela, R., Subramanya Raj Urs, T. S., Venkat Rao, S., Rajalakshmi, D., Swaminathan, M., and Parpia, H. A.B. The supplementary value of the proteins of soya bean as compared with those of Bengal gram, red gram and skim milk powder to poor Indian diets based on rice and wheat. Jour. Nutr. and Dietet. (India) 2: 128-133. 1965.

128. De, H. N. Comparative study of net protein utilization (NPU) value of rice deduced by feeding experiment and from FAO protein score. Sci. Res. 1: 127-133. 1964.

129. De, H. N., Islam, A., and Mollah, Y. Fish flour--its biochemical and nutritional studies. IV. Supplementary effect of fish protein concentrate on the cereal proteins (rice, wheat) evaluated by determination of PER values and measurement of liver protein nitrogen, nonprotein nitrogen, and fat contents. Sci. Res. 3: 31-42. 1966.

130. De Groot, A. P., Luyken, R., and Pikaar, N. A. Cholesterol lowering effect of rolled oats. Lancet 2: 303-304. 1963. (vs rice)

131. Deshpande, P. D., Harper, A. E., Quiros-Perz, F., and Elvehjem, C. A. Further observations on the improvement of polished rice with protein and amino acid supplements. Jour. Nutr. 57: 415-428. 1955.

132. Desikachar, H. S. R., Sankaran, A. N., and Subrahmanyan, V. The comparative value of soybean and Bengal gram as supplements to the poor South Indian rice diet. Indian Jour. Med. Res. 44: 741-748. 1956.

133. Devadas, R. P., Devadoss, M. V. K., and Rowlands, R. The supplementary value of wild greens--a mixture of leafy vegetables to a poor Indian rice diet. Jour. Nutr. and Dietet. (India) 1: 34-37. 1964.

134. Devadas, R. P., Sambamurthy, R., and Rowlands, R. The nutritive value of the proteins of blends of red gram dhal, milk, rice, and peas. Jour. Nutr. and Dietet. (India) 1: 182-183. 1964.

135. Devadas, R. P., and Sutton, T. S. The effect of yolk supplementation to the poor rice diet of South India on the growth of rats. I. Fat extracted egg yolk. Indian Jour. Med. Res. 39: 51-58. 1951.

136. Devadas, R. P., and Sutton, T. S. The effect of yolk supplementation to the poor rice diet of South India on the growth of rats. II. Egg yolk extract. Indian Jour. Med. Res. 39: 59-62. 1951.

137. Dikshit, P. K., and Ranganathan, S. The effect of rice and wheat diets on growth, reproduction and lactation in albino rats. Indian Jour. Med. Res. 46: 496-502. 1958.

138. Dodds, M. L. Cariogenic property of cereal food. Jour. Nutr. 71: 317-321. 1960.

139. Feldberg, C., and Hetzel, C. D. The role of lysine in cereal food products. Food Tech. 12: 496-500. 1958.

140. Fuwa, H. (Effect of lysine and threonine supplement on nitrogen compounds in urine of rats fed polished rice.) Jour. Jap. Soc. Food Nutr. 17: 240-243. 1964.

141. Fuwa, H., and Masuda, M. (Relationship between supplementation of polished rice with lysine and threonine and the ages of rats.) Jour. Jap. Soc. Food Nutr. 17: 236-239. 1964.

142. Guha, B. C. The influence of a Bengali dietary on the growth of young rats. Indian Jour. Pediat. 2: 30-33. 1934.

143. Gupta, J. D., Dakroury, A. M., Harper, A. E., and Elvehjem, C. A. Biological availability of lysine. Jour. Nutr. 64: 259-270. 1958.

144. Harper, A. E., Winje, M. E., Benton, D. A., and Elvehjem, C. A. Effect of amino acid supplements on growth and fat deposition in the livers of rats fed polished rice. Jour. Nutr. 56: 187-198. 1955.

145. Hirohata, R. (Nutritive value of rice.) Eiyo To Shokuvyo 11: 297-305. 1959.

146. Hoagland, R., and Snider, G. G. The value of beef protein as a supplement to the proteins in certain vegetable products. Jour. Agr. Res. 34: 297-308. 1927.

147. Howe, E. E., Jansen, G. R., and Gilfillan, E. W. Amino acid supplementation of cereal grains as related to the world food supply. Amer. Jour. Clin. Nutr. 16: 315-320. 1965.

148. Hurusawa, Y., and Harada, C. (Studies on the nutritive value of buckwheat. VI. On the effect of buckwheat supplementation of rice and wheat.) Jour. Jap. Soc. Food Nutr. 13: 71-74. 1960.

149. Inagaki, C., Shiao, S. S., Ohnishi, M., Tsuyuki, K., and Sugawara, S. (A study of the possible necessity of adding threonine as well as lysine to polished rice.) Jour. Jap. Soc. Food Nutr. 16: 264-269. 1963.

150. Jacquot, R., and Abraham, J. Influence des traitements industriels et menagers sur la valeur nutritive des aliments protidiques. Biblio. Nutr. et Dieta. 7: 43-68. 1965.

151. Jones, D. B., Caldwell, A., and Widness, K. D. Comparative growth-promoting values of the proteins of cereal grains. Jour. Nutr. 35: 639-650. 1948.

152. Joseph, K., Rao, M. N., Chandiramani, S. V., Rajogopalan, R., Swaminathan, M., and Subrahmanyan, V. Studies on the nutritive value of idli fortified with Indian Multipurpose Food. Food Sci. (Mysore) 8: 81-82. 1959.

153. Joseph, K., Rao, M. N., Indiramma, K., Swaminathan, M., and Subrahmanyan, V. Studies on the nutritive value of idli fortified with Indian Multipurpose Food. Jour. Sci. Ind. Res. 20C: 269-272. 1961.

154. Joseph, K., Rao, M. N., Swaminathan, M., Indiramma, K., and Subrahmanyan, V. The nutritive value of protein blends similar to FAO reference protein patterns in amino acid composition. Proc. Symposium on Proteins, Mysore, India, pp. 369-374. 1961. Also: Chem. Abst. 58: 1760. 1963.

155. Joseph, K., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. Effect of partial replacement of rice in poor rice diet by potato on the nutritive value of the diets. Food Sci. (Mysore) 9: 41-43. 1960.

156. Khandwala, P. K., Ambegaokar, S. D., Patel, S. M., and Radhakrishna Rao, M. V. Fermented foods. I. Nutritive value of idli. Jour. Sci. Ind. Res. 21C: 275-278. 1962.

157. Kik, M. C. The biological value of the proteins of rice and its by products. Cereal Chem. 16: 441-447. 1939.

158. Kik, M. C. The nutritive value of the proteins of rice and its by products. II. Effect of amino acid additions on growth. Cereal Chem. 17: 473-476. 1940.

159. Kik, M. C. Nutritive value of the proteins of rice and its by products. III. Amino acid content. Cereal Chem. 18: 349-354. 1941.

160. Kik, M. C. Nutritive value of rice germ. Jour. Agr. Food Chem. 2: 1179-1181. 1954.

161. Kik, M. C. Nutritive value of rice. Nutrients in rice bran and rice polish and improvements of protein quality with amino acids. Jour. Agr. Food Chem. 4: 170-173. 1956.

162. Kik, M. C. Nutritional improvement of rice. Jour. Amer. Dietet. Assoc. 32: 647-650. 1957.

163. Kik, M. C. Nutritive value of rice and its by products. Ark. Agr. Expt. Sta Bul. 589, 24 pp. 1957.

164. Kik, M. C. Rice protein supplementation: Further studies on the nutritional improvement of rice. Jour. Agr. Food Chem. 8: 380-382. 1960.

165. Kik, M. C. Nutritive value of buffalo fish: Value in improving cereal grains. Jour. Amer. Dietet. Assoc. 41: 119-123. 1962.

166. Kik, M. C. Nutritive value of chicken meat and its value in supplementing rice protein. Jour. Agr. Food Chem. 10: 59-61. 1962.

167. Kik, M C. Nutritional improvement of rice diets and effect of rice on nutritive value of other foodstuffs. Ark. Agr. Expt. Sta. Bul. 698, 24 pp. 1965.

168. Kik, M. C., and Williams, R. R. The nutritional improvement of white rice. Natl. Acad. Sci.-Natl. Res. Council Bul. 112, 6 pp. 1945.

169. Kobatake, Y., Matsumo, N., and Tamura, E. Availability of threonine from polished rice. Ann. Rpt. Natl. Inst. Nutr. (Tokyo), p. 8. 1962.

170. Koike, G., Kimura, H., and Kasagawa, A. (Effect of fortification with lysine, threonine, methionine and tryptophan on the mixture of rice and soybean proteins.) Jour. Jap. Soc. Food Nutr. 13: 75-78. 1960.

171. Korula, S., Chandrasekhara, M. R., Nataraja, N., Bhatia, D. S., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Nutritive value of spray dried food based on groundnut protein isolate and skim milk powder. Food Sci. (Mysore) 11: 18-21. 1962.

172. Korula, S., Shurpalekar, S. R., Jumar, G. V., Chandrasekhara, M. R., Parthasarathy, L., and Swaminathan, M. Supplementary value of a spray dried infant food formulation based on groundnut protein isolate and full-fat soya flour to a poor rice diet. Jour. Nutr. and Dietet. (India) 1: 169-172. 1964.

173. Koyanagi, T., Hareyama, S., and Kijuchi, R. The effect of water-washed rice in the diet on the growth, excretion of sodium in urine and blood pressure of rats. Tohoku Jour. Expt. Med. 78: 347-351. 1963.

174. Koyanagi, T., Ueki, M., and Suwa, J. Effect of dietary egg albumin on the phytase activity of rats fed on a rice diet. Tohoku Jour. Expt. Med. 85: 155-159. 1965.

175. Krishnamurti, C. R., and Subrahmanyan, V. The effect of certain supplements on the growth of young rats on poor South Indian rice diet. Indian Jour. Med. 37: 33-39. 1949.

176. Kundji, T. R., and Rao, M. V. R. Supplementary nutritive value of some subsidiary cereals. Cur. Sci. 23: 93-94. 1954.

177. Kuppuswamy, S., Giri, K. V., and Subrahmanyan, V. Supplementary value of oilseed cakes to South Indian diet. Indian Jour. Med. Res. 37: 41-50. 1949.

178. Kuppuswamy, S., Srinivasan, M., and Subrahmanyan, V. Protein in foods. Indian Council Med. Res., New Delhi, Spec. Rpt. Ser. 33, 290 pp. 1958. (A compilation of data.)

179. Kurien, P. P., Rao, M. N., Swaminathan, M., Sankaran, A. N., and Subrahmanyan, V. The effect of partial or complete replacement of rice in poor vegetarian diet by juar (Sorghum vulgare) on the growth and composition of blood and liver of albino rats. Ann. Biochem. Expt. Med. 20: 293-298. 1960.

180. Kurien, P. P., Rao, M. N., Swaminathan, M., Sankaran, A. N., and Subrahmanyan, V. The effect of partial or complete replacement of rice in poor rice diet by bajra (Pennisetun typhoideum), on growth and composition of blood, body, liver of albino rats. Ann. Biochem. Expt. Med. 22: 245-248. 1962.

181. Kurien, P. P., Sivaramakrishnan, R., Swaminathan, M., Indiramma, K., and Subrahmanyan, V. The effect of partial or complete replacement of rice in poor vegetarian diet by ragi (Eleusine coracana) on growth and composition of blood and liver of rats. Ann. Biochem. Expt. Med. 18: 187-194. 1958. Also: Food Sci. (Mysore) 7: 322-324. 1958.

182. Lal, B. M., and De, S. S. Studies on balanced food. Indian Jour. Physiol. and Allied Sci. 6: 8-16. 1952.

183. Lal, B. M., and Rajagopalan, R. Studies on "balanced food." III. Nutritive value of the food. Jour. Indian Inst. Sci. 41: 38. 1959.

184. Li, Tsan-Wen. Biological value of the proteins of barley, rice, kaoliang and millet. Chinese Jour. Physiol. 9: 49-58. 1930.

185. Lily, G., Mani, G. S., Balasubramanian, S. C., and Basu, K. P. Supplementary value of milk and some indigenous milk products to a poor rice diet. Indian Jour. Med. Res. 43: 249-253. 1955.

186. McCarrison, R. The influence of irrigation on the nutritive value of rice. Indian Jour. Med. Res. 15: 915-920. 1928.

187. McCollum, E. V., and Davis, M. The nature of the dietary deficiencies of rice. Jour. Biol. Chem. 23: 181-230. 1915.

188. McCollum, E. V., and Simmonds, N. A biological analysis of pellagra-producing diets. III. The values of some seed proteins for maintenance. Jour. Biol. Chem. 32: 347-368. 1917.

189. McCollum, E. V., Simmonds, N., and Pitz, W. The nature of the dietary deficiencies of the wheat embryo. Jour. Biol. Chem. 25: 105-131. 1916.

190. McCollum, E. V., Simmonds, N., and Pitz, W. The vegetarian diet in the light of our present knowledge of nutrition. Amer. Jour. Physiol. 41: 333-360. 1916.

191. McCollum, E. V., Simmonds, N., and Pitz, W. The supplementary dietary relationship between leaf and seed as contrasted with combinations of seed with seed. Jour. Biol. Chem. 30: 13-32. 1917.

192. Madden, S. C., and Whipple, G. H. Plasma proteins: Their source, production and utilization. Physiol. Rev. 20: 194-217. 1940.

193. Majumdas, B. N., Shama, D. C., and Keha, N. D. Effects of partial replacement of rice or wheat by tapioca or sweet potato flour on the nutritive value of poor vegetarian diets: Influence of season in growth studies. Ann. Biochem. Expt. Med. 20: 7-14. 1960.

194. Malakar, M. C., and Banerjee, S. N. Effect of cooking rice with different values of water on the loss of nutrients and on digestibility of rice in vitro. Food Res. 24: 751-756. 1959.

195. Marfori, C. G., and Gonzales, J. M. Growth performance of rats on a fish flour-mungol (Phaseolus aureus roxb)-rice diet. Phillipine Jour. Sci. 93: 179-188. 1964.

196. Markuze, Z. Biological value of the proteins of certain cereals. Biochem. Jour. 31: 1973-1977. 1937.

197. Mason, E. D., Devadas, R., and Frimodt-Moller, J. The effects on growth in rats of butter and ragi (Eleusine coracana) separately and combined as supplements to the poor rice diet of South India. Indian Jour. Med. Res. 34: 45-48. 1946.

198. Maynard, L. A., Fronda, F. M., and Chen, T. C. The protein efficiency of combinations of cornmeal and certain other feeding stuffs, notably rice bran. Jour. Biol. Chem. 55: 145-155. 1923.

199. Mitchell, H. H. The biological value of proteins at different levels of intake. Jour. Biol. Chem. 58: 905-922. 1924.

200. Mitchell, H. H. The nutritive value of proteins. Physiol. Rev. 4: 424-478. 1925.

201. Mitchell, H. H., and Block, R. J. Some relationships between amino acid contents of proteins and their nutritive values for the rat. Jour. Biol. Chem. 163: 599-620. 1946.

202. Mitchell, H. H., and Villegas, V. The nutritive value of the proteins of coconut meal, soybeans, rice bran and corn. Jour. Dairy Sci. 6: 222. 1923.

203. Moriyama, T. The interaction of cyclic amino acids with ascorbic acid. IV. Experiments in vivo. Jour. Biochem. 44: 293-297. 1957.

204. Murata, K., Miyamoto, T., and Tamiya, A. The availability of essential amino acids from rice. II. In vitro digestion studies. Rpts. Sci. Living 9: 19-27. 1961. (Osaka, Japan)

205. Nirmala, P. S. Biological evaluation of rice and peanut protein. Indian Jour. Home Sci. 1: 24-25. 1966.

206. Nirmala, P. S., Mathew, E., and Devadas, R. P. Effect of dietary protein on carotene utilization by albino rats. Jour. Nutr. and Dietet. (India) 3: 81-84. 1966.

207. Nonaka, Y., and Ariyama, H. On the form of the amino acids in the excreta of rats fed 10 percent polished rice glutelin, 10 percent milk casein or nonprotein diets. Tohoku Jour. Agr. Res. 12: 291-295. 1961.

208. Nonaka, Y., and Ariyama, H. Lysine- and threonine-containing peptides excreted in the urine of rats fed a polished rice diet. Agr. Biol. Chem. (Tokyo) 26: 635. 1962.

209. Nonaka, Y., and Ariyama, H. On the amino acid sequence of urinary peptides of rats fed on a polished rice diet. Agr. Biol. Chem. 26: 850. 1962.

210. Nonaka, Y., and Ariyama, H. Studies on the physiological availability of polished rice protein. III. On the threonine-and lysine-containing urinary peptides. Tohoku Jour. Agr. Res. 14: 45-50. 1963.

211. Ohkama, T., Yamagiri, K., and Satoh, H. (Effect of addition of l-lysine and dl-threonine to polished rice in rats.) Jour. Jap. Soc. Food Nutr. 12: 329-333. 1960.

212. Osborne, T. B., and Mendel, L. B. Nutritive factors in plant tissues. I. The protein factor in the seeds of cereals. Jour. Biol. Chem. 34: 521-535. 1918.

213. Panemangalore, M., Joseph, K., Rajagopalan, R., Sankaran, A. N., Subramanian, N., Bhatia, D. S., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of high protein food based on groundnut protein isolate to a poor rice diet. Food Sci. (Mysore) 11: 201-204. 1962.

214. Panemangalore, M., Parthasarathy, H. N., Sankaran, A. N., Joseph, K., Rao, M. N., and Swaminathan, M. The metabolism of nitrogen, digestibility coefficient and biological value of proteins and NPU in poor rice diet supplemented with methionine fortified soya flour and skim milk powder. Canad. Jour. Biochem. 42: 641-650. 1964.

215. Patwardhan, V. N. Protein element in Indian nutrition. Indian Jour. Med. Sci. 10: 1-18. 1956.

216. Patwardhan, V. N. Nutritive value of cereal and pulse proteins. In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 201-210. 1961.

217. Pecora, L. J., and Hundley, J. M. Nutritional improvement of white polished rice by the addition of lysine and threonine. Jour. Nutr. 44: 101-112. 1951.

218. Phansalkar, S. V. Nutritive evaluation of vegetable proteins. Proc. Symposium on Proteins, pp. 1-10, Aug. 1960, Pub. by Cent. Food Tech. Res. Inst., Mysore. 1961.

219. Phansalkar, S. V., Ramachandran, M., and Patwardhan, V. N. Nutritive value of vegetable proteins. I. Protein efficiency ratios of cereals and pulses and the supplementary effect of the addition of a leafy vegetable. Indian Jour. Med. Res. 45: 611-621. 1957.

220. Prabhakar, J. V., Joseph, K., Rao, M. N., and Swaminathan, M. The supplementary value of low-fat groundnut flour and groundnut protein isolate fortified with certain vitamins and calcium to poor vegetarian rice diet. Jour. Nutr. and Dietet. (India) 1: 153-157. 1964.

221. Pruthi, J. S., Lal, G., Swaminathan, M., and Subrahmanyan, V. Effect of supplementation of poor vegetarian rice diet with passion fruit juice and squash on the growth rate, calcium, phosphorus and nitrogen metabolism in albino rats. Ann. Biochem. Expt. Med. 18: 107-111. 1958.

222. Rajalakshmi, R., and Subbulakshmi, G. Effect of fenugreek (Trigonella foenum-graecun linn) supplementations on the biological value of rice and black gram (Phaseolus mungo) diet. Indian Jour. Biochem. 1: 104-106. 1964.

223. Ramachandran, M., Phansalkar, S. V., and Patwardhan, V. N. Nutritive value of vegetable protein. III. Biosynthesis of vitamin B_{12} and its utilization in rats on vegetable protein diets. Indian Jour. Med. Res. 48: 243-249. 1960.

224. Rama Rao, P. B. R., Norton, H. W., and Johnson, B. C. The amino acid composition and nutritive value of proteins. V. The amino acid requirements as a pattern for protein evaluation. Jour. Nutr. 82: 88-92. 1964.

225. Rand, N. T., and Collins, V. K. Improvement of cereals with defatted wheat germ. Food Tech. 12: 585-588. 1958.

226. Randion, L., and Billand, S. Le riz. Bul. Soc. Sci. Hyg. Aliment. 49: 3-63. 1961.

227. Ranganathan, S. Rice diets and fertility rate. Cur. Sci. 23: 3-5. 1954.

228. Rao, D. N., Sreeramanurthy, V. V., and Venkateswarlu, P. The supplementary effect of pulses and rice on tapioca diet. Indian Jour. Med. Res. 39: 329-336. 1951.

229. Rao, G. R., Indira, K., Ramanathan, G., and Chandrasekhara, M. R. Infant food based on coconut protein, groundnut protein isolate and skim milk powder. II. Overall growth promoting value to poor cereal diets. Jour. Sci. Food and Agr. 15: 841-846. 1964.

230. Rao, M. N., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. Nutritive value of certain cereals and cereal diets consumed in India. Food Sci. (Mysore) 10: 163-175. 1961. (A review.)

231. Rao, M. N., and Swaminathan, M. Nutritive value of undermilled and milled raw rice. Bul. Cent. Food Tech. Res. Inst. (Mysore) 2: 262-263. 1953.

232. Rao, M. V. R. Intestinal changes in monkeys fed on poor rice diets. Indian Jour. Med. Res. 30: 273-284. 1942.

233. Rao, V. H., Chakrabarti, C. H., and Nath, M. C. Effect of rice polishing concentrate on the fecal excretion of cholesterol-fed albino rats. Sci. and Cult. 32: 84-86. 1966.

234. Rosenberg, H. R. Supplementation of food with amino acids. Jour. Agr. Food Chem. 7: 316-321. 1959.

235. Rosenberg, H. R., and Culik, R. The improvement of the protein quality of white rice by lysine supplementation. Jour. Nutr. 63: 477-487. 1957.

236. Rosenberg, H. R., and Eckert, R. E. Lysine and threonine supplementation of rice. Jour. Nutr. 69: 217-228. 1959.

237. Rosenberg, H. R., and Eckert, R. E. Multiple amino acid supplementation of proteins. In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 451-467. 1961.

238. Sabry, Z. I., Morrison, A. B., and Campbell, J. A. Evaluation of protein in foods. X. A comparison of methods for assessing the protein contribution of five Middle Eastern meals. Jour. Assoc. Off. Agr. Chem. 47: 377-382. 1964.

239. Sanchez, A., Scharffenberg, J. A., and Register, U. D. Nutritive value of selected proteins and protein combinations. I. The biological value of proteins singly and in meal patterns with varying fat composition. Amer. Jour. Clin. Nutr. 13: 243-249. 1963.

240. Sanchez, A., Scharffenberg, J. A., and Register, U. D. Nutritive balue of selected proteins and protein combinations. II. Biological value predictability. Amer. Jour. Clin. Nutr. 13: 250-253. 1963.

241. Sathe, S. V., Venkitasubramanian, T. A., and De. S. S. Effect of milling of rice on the utilization of calcium and phosphorus in growing rats. Indian Jour. Physiol. Allied Sci. 6: 80-88. 1952.

242. Saxena, K. L., Chakrabarti, C. H., and Nath, M. C. Effect of rice polishing concentrate on the nitrogen, calcium and phosphorus metabolism of albino rats kept on rice and jowar diets. Jour. Nutr. and Dietet. (India) 3: 121-125. 1966.

243. Saxena, K. L., and Nath, M. C. Effect of palm jaggeries on the utilization of calcium, phosphorus, and nitrogen of poor Indian diets. Indian Jour. Physiol. Allied Sci. 16: 118-121. 1962.

244. Saxena, K. L., and Nath, M. C. Effect of palm jaggeries on the growth and blood and liver composition of albino rats kept on rice and jowar diets. Ann. Biochem. Expt. Med. 23: 61-64. 1963.

245. Sen, D. P. Studies on food iron. IV. Effect of protein on the haemopoiesis due to the iron in rice. Ann. Biochem. Expt. Med. 12: 67-74. 1952.

246. Sen, D. P. Studies on food iron. V. Haemopoietic effect of iron in rice (Oryza sativa), wheat (Triticum vulgare), lentil (Lens esculenta), ferric phytate, egg yolk of duck, lecitho vittellin protein and ferric chloride. Ann. Biochem. Expt. Med. 12: 103-110. 1952.

247. Shurpalekar, S. R., Chandrasekhara, M. R., Lahiry, N. L., Indiramma, K., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Studies on milk substitutes of vegetable origin. IV. The supplementary value of spray-dried vegetable milk powder obtained from a blend of soybean and groundnut milk to a poor rice diet. Ann. Biochem. Expt. Med. 32: 67-72. 1962.

248. Shurpalekar, S. R., Joseph, A. A., Lahiry, N. L., Moorjani, M. N., Sankaran, A. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of fish flour and a protein food containing low-fat groundnut flour to poor rice diet. Food Sci. (Mysore) 11: 45-48. 1962.

249. Shurpalekar, S. R., Joseph, A. A., Moorjani, M. N., Lahiry, N. L., Indiramma, K., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of fish flour fortified with vitamins to poor Indian diets based on different cereals and millets. Food Sci. (Mysore) 11: 49-51. 1962.

250. Shurpalekar, S. R., Korula, S., Joseph, A. A., Parthasarathy, L., Chandrasekhara, M. R., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of pre-cooked roller-dried protein foods based on full-fat soya flour and low-fat groundnut flour to a poor Indian rice diet. Jour. Sci. Food Agr. 15: 373-377. 1964.

251. Sidransky, H. Chemical pathology of nutritional deficiency induced by certain plant proteins. Jour. Nutr. 71: 387-395. 1960.

252. Sirinit, K., Soliman, A. G. M., Van Loo, A. T., and King, K. W. Nutritional value of Haitian cereal-legume blends. Jour. Nutr. 86: 415-423. 1965.

253. Subrahmanyan, V., Bhatia, D. S., Swaminathan, M., and Bain, G. S. Rice substitutes. Nature (London) 174: 199-201. 1954.

254. Subrahmanyan, V., Kuppuswamy, S., and Swaminathan, M. Possible influence of the quality of rice in determining the nutritive value of the poor rice diet. Bul. Cent. Food Tech. Res. Inst. (Mysore) 3: 272-276. 1954.

255. Subrahmanyan, V., Murthy, H. B. N., Bhagavan, R. K., Swaminathan, M., and Sankaran, A. N. Effect of long-time feeding of albino rats on rice and rice-tapioca diets on the blood and liver. Brit. Jour. Nutr. 12: 292-296. 1958.

256. Subrahmanyan, V., Murthy, H. B. N., and Swaminathan, M. Effects of partial replacement of rice, wheat or ragi (Eleusine coracana) by tuber flours on the nutritive value of poor vegetarian diets. Brit. Jour. Nutr. 8: 1-10. 1954.

257. Subrahmanyan, V., Rao, M. N., Sankaran, A. N., and Swaminathan, M., Studies on the nutritive value of poor vegetarian diets based on husked, undermilled and milled raw rice. Bul. Cent. Food. Tech. Res. Inst. (Mysore) 5: 214-215. 1956.

258. Subrahmanyan, V., Rao, M. N., and Swaminathan, M. Nutritive value and keeping quality of husked, undermilled and milled raw rice. Bul. Cent. Food Tech. Res. Inst. 5: 329-334. 1956.

259. Subrahmanyan, V., Rao, M. N., and Swaminathan, M. Studies on the nutritive value of rice and rice diets. I. The nutritive value of husked, undermilled and milled raw rice. Ann. Biochem. Expt. Med. 16: 81-88. 1956.

260. Subrahmanyan, V., and Sur, B. K. Supplementary value of lucerne to the poor South Indian rice diet. Indian Jour. Med. Res. 37: 319-326. 1949.

261. Sur, B. K. Supplementary value of leaves to the poor rice diet. Bul. Cent. Food Tech. Res. Inst. 4: 159. 1955.

262. Sur, B. K. Nutritive value of lucerne-leaf proteins. Biological values and their supplementary relation to rice proteins, measured by balance and rat growth methods. Brit. Jour. Nutr. 15: 419-424. 1961.

263. Sur, B. K., and Subrahmanyan, V. Effect of lucerne supplement to the rice diet on the body composition of growing rats. Cur. Sci. 24: 15-16. 1955.

264. Sur, B. K., and Subrahmanyan, V. Utilization of calcium and phosphorus in the poor rice diet supplemented with lucerne or milk powder. Indian Jour. Med. Res. 43: 231-235. 1955.

265. Sur, G., Reddy, S., Swaminathan, M., and Subrahmanyan, V. Supplementary value of the proteins of food yeast to cereal proteins. Bul. Cent. Food Tech. Res. Inst. (Mysore) 4: 35-36. 1954-55.

266. Sur, G ., Reddy, S. K., Swaminathan, M., and Subrahmanyan, V. Supplementary value of food yeast (Torula utilis) to poor vegetable diets based on cereals. Bul. Cent. Food Tech. Res. Inst. 3: 111. 1954.

267. Sure, B. Nutritional improvement of cereal flours and cereal grains. Jour. Amer. Dietet. Assoc. 22: 494-502. 1946.

268. Sure, B. Relative efficiency of the proteins in polished rice and in enriched wheat flour. Proc. Soc. Expt. Biol. Med. 61: 342-343. 1946.

269. Sure, B. Further studies on nutritional improvement of cereal flours and cereal grains with yeast. Jour. Amer. Dietet. Assoc. 23: 113-119. 1947.

270. Sure, B. Nutritional improvement of cereal grains with small amounts of foods of high protein content. Ark. Agr. Expt. Sta. Bul. 493, 62 pp. 1950.

271. Sure, B. Effect of amino acid and vitamin B_{12} supplements on the biologic value of proteins in rice and wheat. Jour. Amer. Dietet. Assoc. 31: 1232-1234. 1955.

272. Sure, B. The protein efficiency of various pablums and the beneficial effect of addition of various amino acids and vitamin B_{12}. Arch. Pediat. 74: 82-89. 1957.

273. Sure, B., Easterling, L., Dowell, K., and Crudup, M. Protein supplementation. Relationships between milled rice and milled white cornmeal. Jour. Agr. Food Chem. 1: 1207-1208. 1953.

274. Sure, B., Easterling, L., Dowell, J., and Crudup, M. The addition of small amounts of defatted fish flour to milled wheat flour, cornmeal and rice. Influence on growth and protein efficiency. Jour. Nutr. 61: 547-554. 1957.

275. Swaminathan, M. The relative value of the proteins of certain foodstuffs in nutrition. Indian Jour. Med. Res. 24: 767-786. 1937.

276. Swaminathan, M. The relative value of the proteins of certain foodstuffs in nutrition. II. The comparative biological values of the proteins of certain cereals, pulses and skimmed milk powder, measured by the growth of young rats. Indian Jour. Med. Res. 25: 57-79. 1937.

277. Swaminathan, M. The relative value of the proteins of certain foodstuffs in nutrition. IV. Supplementary values: Studies by (A) the balance sheet method using adult rats, and (B) the growth method using young rats. Indian Jour. Med. Res. 25: 399-426. 1937.

278. Swaminathan, M. The relative value of the proteins of certain foodstuffs in nutrition. V. Supplementary values of the proteins of Eleusine coracana (ragi) and of certain pulses and skimmed milk powder studied by the nitrogen balance and the growth method. Indian Jour. Med. Res. 26: 107-112. 1938.

280. Swaminathan, M. The relative value of the proteins of certain foodstuffs in nutrition. VI. General conclusions. Indian Jour. Med. Res. 26: 113-118. 1938.

281. Swaminathan, M. The relative amounts of the protein and nonprotein nitrogenous constituents occurring in foodstuffs and their significance in the determination of the digestibility coefficient of proteins. Indian Jour. Med. Res. 25: 847-855. 1938.

282. Swaminathan, M. The nicotinic acid content of the tissues of monkeys fed on wheat, maize and rice diets. Indian Jour. Med. Res. 28: 91-99. 1940.

283. Tamura, E., Kobatake, Y., Niizeki, S., and Matsuno, N. Effects of lysine supplementation to cereal protein on the free threonine levels in the plasma and tissues of rats. Ann. Rpt. Tanabe Amino Acid Res. Found., Osaka, Japan, pp. 12-13. 1966.

284. Tamura, E., Matsuno, N., and Nakatsu, M. Effects of lysine supplementation to cereal protein on free threonine levels of plasma and liver in rats. Ann. Rpt. Natl. Inst. Nutr. (Tokyo), pp. 6-9. 1965.

285. Tamura, E., Matsuno, N., and Niizeki, S. The availability of lysine from rice, wheat flour and barley by using the growth of weanling rats. Ann. Rpt. Natl. Inst. Nutr. (Tokyo), pp. 9-10. 1963.

286. Tamura, E., Niizeki, S., Matsuno, N., and Kobatake, Y. The availability of lysine from cereals. I. The availability of lysine from rice and wheat flour by estimation of fecal excreted lysine. Ann. Rpt. Natl. Inst. Nutr. (Tokyo), pp. 7-8. 1963.

287. Tasker, P. K., Indira, K., Rao, M. N., Indiramma, K., Swaminathan, M., and Subrahmanyan, V. The supplementary value of coconut meal, groundnut meal, Bengal gram, low-cost protein food, and skim milk powder to tapioca-rice diet. Ann. Biochem. Expt. Med. 21: 17-24. 1961.

288. Tasker, P. K., Joseph, A. A., Ananthaswamy, H. N., Paul Jayaraj, A., Indiramma, K., Rao, M. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of a protein food based on a blend of soy, groundnut and coconut flours to a tapioca-rice diet. Food Sci. (Mysore) 12: 178-181. 1963.

289. Tasker, P. K., Rao, M. N., Indiramma, K., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of low-fat peanut flour, skim milk powder and their blends to poor rice diet. Food Sci. (Mysore) 11: 176-180. 1962.

290. Venkat Rao, S., Gopalakrishna Rao, N., Bains, G. S., Bhatia, D. S., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Studies on enriched tapioca macaroni products. IV. Effect of partial replacement of rice on the nutritive value of poor rice diet. Food Sci. (Mysore) 10: 386-389. 1961.

291. Vijayaraghavan, P. K. The hemopoietic activity of some food proteins. Indian Jour. Med. Res. 43: 569-574. 1955.

292. Vijayaraghavan, P. K., and Patwardhan, V. N. Role of dietary factors in experimental liver injury. Cur. Sci. 21: 120-122. 1952.

293. Vijayaraghavan, P. K., and Patwardhan, V. N. The influence of poor rice diet on livers of albino rats. Indian Jour. Med. Sci. 6: 696-707. 1952.

294. Wagle, D. S., Mitbander, V. B., and Sreenivasan, A. Effect of B-vitamins on protein utilization from rice-legume dietaries. Jour. Nutr. 76: 199-206. 1962.

295. Watanabe, S. (Nutrition studies on pure amino acid. Effect of l-lysine and excessive threonine added to polished rice.) Jour. Jap. Soc. Food Nutr. 13: 226-227. 1960.

296. Watanabe, S. (Effect of skim milk and pure amino acid added to polished rice.) Jour. Jap. Soc. Food Nutr. 13: 228-230. 1960.

297. Williams,R. R. (Ed.) Appraisal of Human Dietaries by Animal Experiment. Conf.Williams Waterman Found., 130 pp. 1947.

298. Yoshida, A. Basic studies on amino acid balance in food proteins. Ann. Rpt. Tanabe Amino Acid Res. Found., Osaka, Japan, p. 11. 1966.

299. Zawahry, M. R., and Wishahy, A. Biological (vegetable) milk. Egypt Pharm. Bul. 42: 203-210. 1960.

Human Studies

1. Albanese, A. A., Snyderman, S. E., Lein, M., Smetak, E., and Vestal, B. The biological value of corn and wheat proteins in the male infant, with a note on the utilization of d-tryptophan. Jour. Nutr. 38: 215-224. 1949.

2. Arroyave, G., Wilson, D., Behar, M., and Viteri, F. The development of INCAP vegetable mixtures. II. Biochemical testing. In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 49-55. 1961.

3. Autret, M Le Mais. In Nutrition et alimentation tropicales, FAO, Rome, Vol. 1: 629-648. 1957.

4. Aykroyd, W. R., and Krishnan, B. G. State of nutrition of school children in South India. II. Diet and deficiency disease in residential hostels. Indian Jour. Med. Res. 24: 707-725. 1937.

5. Aykroyd, W. R., and Rajagopal, K. State of nutrition of school children in South India. Indian Jour. Med. Res. 24: 419-437. 1936.

6. Aykroyd, W. R., and Swaminathan, M. The nicotinic acid content of cereals and pellagra. Indian Jour. Med. Res. 27: 667-677. 1940.

7. Ballarin, O. Problems in food technology in the development of new foods for the preschool child. In Preschool Child Malnutrition, Natl. Acad. Sci.-Natl, Res. Council Pub. 1282, pp. 232-240. 1966.

8. Ballschmieter, H. M. B., Richert, E., and Schweigart, F. The utilization of "mealies" in bread and other products. So. African Med. Jour. 38: 648-652. 1964.

9. Behar, M., and Bressani, R. Experience in development of Incaparina for the preschool child. In Preschool Child Malnutrition. Primary Deterrent to Human Progress, Natl. Acad. Sci.-Natl. Res. Council Pub. 1282, pp. 213-219. 1966.

10. Behar, M., Bressani, R., and Scrimshaw, N. S. Treatment and prevention of kwashiorkor. In World Review of Nutr. and Dietet. Vol. 1: 77-106. 1959. Edit. G. H. Bourne, Pitman Med. Pub., London.

11. Behar, M., Viteri, F., Bressani, R., Arroyave, G., Squibb, R. L., and Scrimshaw, N. S. Principles of treatment and prevention of severe protein malnutrition in children (kwashiorkor). Ann. N. Y. Acad. Sci. 69: 954-968. 1958.

12. Booyens, J., de Waal, V. M., Rademeyer, L. J., and Calitz, F. The effect of dietary maize meal supplementation on the levels of serum cholesterol and magnesium. So. African Med. Jour. 40: 237-239. 1966.

13. Braham, J. E., Bressani, R., De Zaghi, S., and Flores, M. Supplementary value of INCAP vegetable mixture 9 for the diets of average school children in rural Guatemala. Jour. Agr. Food Chem. 13: 594-596. 1965.

14. Bressani, R., and Behar, M. The use of plant protein foods in preventing malnutrition. In Nutrition Proc., VI Internatl. Cong. Nutr. pp. 181-206. 1964.

15. Bressani, R., and Scrimshaw, N. S. The development of INCAP vegetable mixtures. I. Basic animal studies. In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 35-48. 1961.

16. Bressani, R., Scrimshaw, N. S., Behar, M., and Viteri, F. Supplementation of cereal proteins with amino acids. II. Effect of amino acid supplementation of corn-masa at intermediate levels of protein intake on the nitrogen retention of young children. Jour. Nutr. 66: 501-513. 1958.

17. Bressani, R., Wilson, D., Chung, M., Behar, M., and Scrimshaw, N. S. Supplementation of cereal proteins with amino acids. V. Effect of supplementing lime-treated corn with different levels of lysine, tryptophan and isoleucine on the nitrogen retention of young children. Jour. Nutr. 80: 80-84. 1963.

18. Brock, J. F. Protein malnutrition, requirement and supplementation. In Meeting Protein Needs of Infants and Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 103-118. 1961.

19. Burgess, H. J. L. Cereal foods used in Uganda. II. Maize. East African Med. Jour. 39: 443-448. 1962.

20. Chalmetta, V., and Metta, S. Fish flour supplementary effect on low-protein and high-protein maize diets of India. Indian Jour. Med. Res. 52: 392-397. 1964.

21. Chen, S. C., Fox, H. M., Peo, E. R., Jr., Blunn, C. T., and Colville, W. D. Nitrogen utilization by rat and man of hail and frost damaged corns. (Abstract) Fed. Proc. 24: 172. 1965.

22. Chen, S. C., Fox, H. M., Peo, E. R., Kies, C. V., Blunn, C. T., and Colville, W. L. Utilization of environmentally produced high nitrogen corn by weanling rats and adult humans. Jour. Nutr. 90: 295-300. 1966.

23. Clark, H. E., Mertz, E. T., and Nelson, O. E. Nitrogen retention of adult humans who consumed opaque-2-maize. (Abstract) VII Internatl. Cong. Nutr. Hamburg, Germany, pp. 236-237. 1966.

24. Clegg, K. M. Availability of lysine in groundnut biscuits (with cornmeal) used in the treatment of kwashiorkor. Brit. Jour. Nutr. 14: 325-329. 1960.

25. Clegg, K. M., and Dean, R. F. A. Balance studies on peanut biscuit in the treatment of kwashiorkor. Amer. Jour. Clin. Nutr. 8: 885-895. 1960.

26. Cronje, R. E., Pretorius, P. J., and Davel, J. G. A. An assessment of the nutritive value of maize diets supplemented with dried skim milk in the treatment of convalescent kwashiorkor patients. So. African Jour. Lab. Clin. Med. 11: 16-20. 1965.

27. Dean, R. F. A. The treatment of kwashiorkor with milk and vegetable proteins. Brit. Med. Jour. 2: 791-796. 1952.

28. Dean, R. F. A. Plant proteins in child feeding. Med. Res. Council Spec. Rpt. Ser. 279, 163 pp. 1953. HMSO (London).

29. Dean, R. F. A. Utilization of indigenous foods rich in protein for the prevention and treatment of malnutrition. In Meeting Protein Needs of Infants and Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 77-87. 1961.

30. Dreyer, J. J., and others. Background information on the development at the NNRI of a supplement for the predominantly maize diet. So. African Med. Jour. 39: 1167-1169. 1965.

31. Flodin, N. W. Amino acids and proteins, their place in human nutrition problems. Agr. Food Chem. 1: 222-235. 1953.

32. Gillman, J., and Gillman, T. Perspectives in Human Malnutrition. Grune and Stratton, N. Y., 584 pp. 1951.

33. Goldberger, J. Pellagra: Causation and a method of prevention. Jour. Amer. Med. Assoc. 66: 471-476. 1916.

34. Goldsmith, G. A., Gibbens, J., Unglaub, W. G., and Miller, O. N. Studies of the niacin requirement in man. III. Comparative effects of diets containing lime-treated and untreated corn in the production of experimental pellagra. Amer. Jour. Clin. Nutr. 4: 151-160. 1956. Also: Fed. Proc. 13: 458-459. 1954.

35. Goldsmith, G. A., Rosenthal, H. L., Gibbens, J., and Unglaub, W. G. Studies of niacin requirements in man. II. Requirement on wheat and corn diets low in tryptophan. Jour. Nutr. 56: 371-386. 1955. Also: (Abstract) Fed. Proc. 12: 415. 1953.

36. Goldsmith, G. A., Sarett, H. P., Register, U. D., and Gibbens, J. Studies of niacin requirement in man. I. Experimental pellagra in subjects on corn diets low in niacin and tryptophan. Jour. Clin. Invest. 31: 533-542. 1952.

37. Gomez, F., Ramos-Galvan, R., Cravioto, J., and Frenk, S. Prevention and treatment of chronic severe infantile malnutrition in children (kwashiorkor). Ann. N. Y. Acad. Sci. 69: 969-981. 1957.

38. Gomez, F., Ramos-Galvan, R., Cravioto, J., Frenk, S., de la Pena, C., Moreno, M. E., and Villa, M. E. Protein metabolism in chronic severe malnutrition nitrogen from a typical poor Mexican diet. Brit. Jour. Nutr. 11: 229-233. 1957.

39. Hansen, J. D. L. The effect of various forms of supplementation on the nutritive value of maize for children. So. African Med. Jour. 34: 855-856. 1960. Also: In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 89-102. 1961.

40. Hansen, J. D. L., Schendel, H. E., Wilkins, J. A., and Brock, J. F. Nitrogen metabolism in children with kwashiorkor receiving milk and vegetable diets. Pediatrics 25: 258-282. 1960.

41. Jacobson, Z. The prevention of kwashiorkor. So. African Med. Jour. 36: 215-216. 1962.

42. Kies, C. V., Fox, H. M., Dam, R., Chen, S., Lee, J., and Williams, E. Factors affecting the adequacy of proteins from cereal grains or algae to meet the nutritional requirements of human adults. (Abstract) II Internatl. Cong. of Food Sci. and Tech., Warsaw, Poland, p. 28. 1966.

43. Kies, C. V., Fox, H. M., and Williams, E. Factors affecting the adequacy of corn protein for nitrogen retention in adult man. (Abstract) Proc. Soc. Expt. Biol. 23: 398. 1964.

44. Kies, C. V., Fox, H. M., and Williams, E. Studies on corn protein: Effect of "non-essential" and nitrogen supplementation and determination of the first limiting amino acid. Proc. Soc. Expt. Biol. 24: 629. 1965.

45. Kies, C. V., Fox, H. M., and Williams, E. Effect of quantitative-qualitative variations in "non-specific" N supplementation of several dietary proteins on N balances of adult men. (Abstract) Fed. Proc. 25: 300. 1966.

46. Kies, C. V., Fox, H. M., and Williams, E. Evaluation of cereal proteins for man. (Abstract) VII Internatl. Cong. Nutr., Hamburg, Germany, p. 236. 1966.

47. Kies, C. V., Williams, E., and Fox, H. M. Determination of first limiting nitrogenous factor in corn protein for nitrogen retention in human adults. Jour. Nutr. 86: 350-356. 1965.

48. Kies, C. V., Williams, E., and Fox, H. M. Effect of "non-specific" nitrogen intake on adequacy of cereal proteins for nitrogen retention in human adults. Jour. Nutr. 86: 357-361. 1965.

49. Kuether, C. A., and Myers, V. C. The nutritive value of cereal proteins in human subjects. Jour. Nutr. 35: 651-667. 1948.

50. Latham, M. C., and Robson, J. R. K. A trial to evaluate the benefit of different protein rich foods to African school children. Nutr. et Dieta. 7: 28-36. 1965.

51. Linkswiler, H., Fox, H. M., and Fry, P. C. Availability to man of amino acids from foods. III. Threonine from corn. Jour. Nutr. 72: 389-396. 1960.

52. Linkswiler, H., Fox, H. M., and Fry, P. C. Availability to man of amino acids from foods. IV. Isoleucine from corn. Jour. Nutr. 72: 397-403. 1960.

53. Linkswiler, H., Fox, H. M., Geschwender, D., and Fry, P. C. Availability to man of amino acids from foods. II. Valine from corn. Jour. Nutr. 65: 455-468. 1958. Also: (Abstract) Fed. Proc. 16: 390. 1957.

54. Linkswiler, H., Geschwender, D., Ellison, J., and Fox, H. M. Availability to man of amino acids from foods. I. General methods. Jour. Nutr. 65: 441-454. 1958.

55. Murlin, J. R., Edwards, L. E., Hawley, E. E., and Clark, L. C. Biological value of proteins in relation to the essential amino acids they contain. I. The endogenous nitrogen of man. Jour. Nutr. 31: 533-554. 1946.

56. Murlin, J. R., Mattill, H. A., and Austin, E. M. The biological value of cereal proteins in human nutrition. Proc. Soc. Expt. Biol. Med. 23: 282-283. 1926.

57. Odendaal, W. A. Amino acid and B-vitamin supplementation between common foodstuffs in South Africa. Clin. Proc. 8: 163-183. 1949.

58. Odendaal, W. A. Experiences in development of Pronutro in South Africa. In Preschool Child Malnutrition, Natl. Acad. Sci.-Natl. Res. Council Pub. 1282, pp. 224-231. 1966.

59. Patwardhan, V. N. Protein element in Indian nutrition. Indian Jour. Med. Sci. 10: 1-18. 1956.

60. Phansalkar, S. V., and Patwardhan, V. N. Utilization of animal and vegetable proteins. Nitrogen balances at marginal protein intakes and the determination of minimum protein requirement for maintenance in young Indian men. Indian Jour. Med. Res. 44: 1-10. 1956.

61. Ramalingaswami, V., Menon, P. S., and Venkatachalam, P. S. Infantile pellagra. A report of five cases. Indian Physician 7: 229-237. 1948.

62. Raman, T. K. Pellagra in India. Indian Physician 7: 141. 1948.

63. Rao, M. N., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. Nutritive value of certain cereals and diets consumed in India. Food Sci. (Mysore) 10: 163-175. 1961.

64. Sacks, S. B. The rehabilitation of the malnourished Bantu infant. So. African Med. Jour. 36: 1007-1010. 1962.

65. Schendel, H. E., and Hansen, J. D. L. Daily urinary nitrogen partitions and balance in infants with kwashiorkor. Amer. Jour. Clin. Nutr. 17: 36-50. 1965.

66. Scrimshaw, N. S., Behar, M., Wilson, D., De Leon, R., and Bressani, R. The development of INCAP vegetable mixtures. III. Clinical and field trials. In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 57-67. 1961.

67. Scrimshaw, N. S., and Bressani, R. Vegetable protein mixtures for human consumption. In Panel II. Protein and amino acids in nutrition. V Internatl. Cong. Nutr., pp. 20-28. 1960.

68. Scrimshaw, N. S., Bressani, R., Behar, M., and Viteri, F. Supplementation of cereal proteins with amino acids. I. Effect of amino acid supplementation of corn masa at high levels of protein intake on nitrogen retention on young children. Jour. Nutr. 66: 485-500. 1958.

69. Scrimshaw, N. S., Bressani, R., Behar, M., and Viteri, F. Supplementation of cereal proteins with amino acids. II. Effect of supplementation of corn masa at intermediate levels of protein intake on nitrogen retention of young children. Jour. Nutr. 66: 501-514. 1958.

70. Scrimshaw, N. S., Bressani, R., Wilson, D., and Behar, M. All-vegetable protein mixtures for human feeding. X. Effect of torula yeast on the protein quality in INCAP vegetable mixture 9. Amer. Jour. Clin. Nutr. 11: 537-542. 1962.

71. Scrimshaw, N. S., Squibb, R. L., Bressani, R., Behar, M., Viteri, F., and Arroyave, G. Vegetable protein mixtures for the feeding of infants and young children. In Amino Acid Nutrition. XIII Ann. Protein Conference, p. 28. 1957. Rutgers Univ. Press.

72. Senecal, J. The treatment and prevention of kwashiorkor in French West Africa. Ann. N. Y. Acad. Sci. 69: 916-953. 1958.

73. Sherman, H. C., Wheeler, L., and Yates, A. B. Experiments on the nutritive value of maize protein and on the phosphorus and calcium requirements of healthy women. Jour. Biol. Chem. 34: 383-393. 1918.

74. Sherman, H. C., and Winter, J. C. Efficiency of maize protein in adult human nutrition. Jour. Biol. Chem. 35: 301-311. 1918.

75. Simson, J. C., and Mann, N. M. The treatment and prevention of kwashiorkor. Clinical trial of a new high-protein food supplement. So. African Med. Jour. 35: 825-828. 1961.

76. Simson, J. C., and Mann, N. M. The prevention of kwashiorkor. So. African Med. Jour. 36: 215. 1962.

77. Simson, J. C., Mann, N. M., and Deppe, W. M. Prevention of kwashiorkor. Clinical trial of an improved mixed animal-vegetable protein supplement. Proc. Nutr. Soc. So. Africa 3: 44-48. 1962.

78. Tasker, P. K., Doraiswamy, T. R., Rao, M. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Metabolism of nitrogen, calcium and phosphorus in undernourished children. VIII. The metabolism of nitrogen, calcium and phosphorus, and the digestibility coefficient and biological value of the proteins and the net protein utilization on poor Indian diets based on rice, maize or a mixture of rice and maize. Brit. Jour. Nutr. 16: 361-368. 1962.

79. Tasker, P. K., Doraiswamy, T. R., Rao, M. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in children on a poor Indian diet based on maize (Zea mays). Indian Jour. Pediat. 29: 37-41. 1962.

80. Truswell, A. S. Effect of additional leucine on nitrogen balances of men eating maize diets. So. African Med. Jour. 36: 943-944. 1962.

81. Truswell, A. S., and Brock, J. F. The effect of amino acid supplementation on the nutritional value of maize protein for human adults. So. African Med. Jour. 33: 98-99. 1959.

82. Truswell, A. S., and Brock, J. F. Effect of amino acid supplements on the nutritive value of maize protein for human adults. Amer. Jour. Clin. Nutr. 9: 715-728. 1961.

83. Truswell, A. S., and Brock, J. F. The nutritive value of maize protein for man. Amer. Jour. Clin. Nutr. 10: 142-152. 1962.

84. Truswell, A. S., Hansen, J. D. L., Schendel, H. E., and Brock, J. F. Controlled trial of the protein value of a maize-pea vegetable mixture for preschool children. So. African Jour. Lab. Clin. Med. 5: 63-78. 1959.

85. Wadsworth, G. R. Weight changes in cooking maize and beans and quantities eaten by healthy males. Jour. Trop. Med. Hyg. 62: 95-96. 1959.

86. Walker, A. R. P. The effect of low fat intakes and of crude fiber on the absorption of fat. Nature 164: 825-827. 1949.

87. Walker, A. R. P. Low niacin concentration in the breast milk of Bantu mothers on a high-maize diet. Nature 173: 405-406. 1954.

88. Walker, A. R. P. Haemoglobin concentration and nutritional state in South African Bantu habituated to a very high iron intake. So. African Jour. Lab. Clin. Med. 1: 36-44. 1955.

89. Walker, A. R. P. Certain biochemical findings in man in relation to diet. Ann. N. Y. Acad. Sci. 69: 989-1008. 1958.

90. Walker, A. R. P. The physiology and pathology of high intakes of nutrients. Amer. Jour. Clin. Nutr. 7: 499-501. 1959.

91. Walker, A. R. P. Nutritional, biochemical and other studies in South African populations. So. African Med. Jour. 40: 814. 1966.

92. Walker, A. R. P., Strydom, E. S. P., Reynolds, P. A., and others. Composition and density of thoracic vertebrae bodies from South African Bantu adults habituated to very high iron intakes. So. African Jour. Lab. Clin. Med. 1: 254-262. 1955.

93. Williams, C. D. A nutritional disease of childhood associated with a maize diet. Arch. Dis. Child. 8: 423-433. 1933.

Experimental Animal Studies

94. Anonymous. Lysine content of opaque-2-maize. Nutr. Rev. 23: 336-337. 1965.

95. Acharya, B. N., Niyogi, S. P., and Patwardhan, V. N. Balanced diets. III. The effect of parching on the biological value of the proteins of some cereals and pulses. Indian Jour. Med. Res. 30: 73-80. 1942.

96. Addis, T., Poo, L. J., and Lew, W. The quantities of protein lost by the various organs and tissues of the body during a fast. Jour. Biol. Chem. 115: 111-116. 1936.

97. Adolph, W. H., and Cheng, F. W. The biological value of mixed cereal proteins. Chinese Jour. Physiol. 9: 245-252. 1935.

98. Anderson, J. O., and Warnick, R. E. Amino acid deficiencies in peanut meal and in corn and peanut meal rations. Poultry Sci. 44: 1066-1072. 1965.

99. Baum, F. (Estimation of biological value of protein with tetrahymena pyriformis W. II. Protein value of different foods and feeds.) Nahrung 10: 453-459. 1966.

100. Beeson, W. M., Lehrer, W. P., and Woods, E. Peas supplemented with wheat germ or corn germ as a source of protein for growth. Jour. Nutr. 34: 587-593. 1947.

101. Benton, D. A., Harper, A. E., and Elvehjem, C. A. Effect of isoleucine supplementation on the growth of rats fed zein or corn diets. Arch. Biochem. Biophys. 57: 13-19. 1955.

102. Boas-Fixsen, M. A. The biological value of protein in nutrition. Nutr. Abst. Rev. 4: 447-459. 1935.

103. Boas-Fixsen, M. A., Hutchinson, J. C. D., and Jackson, H. M. The biological values of proteins. V. The comparative biological values of the proteins of whole wheat, whole maize and maize gluten, measured by the growth of young rats. Biochem. Jour. 28: 592-601. 1934.

104. Boas-Fixsen, M. A., and Jackson, H. M. Biological value of proteins. IV. The biological value of the milk proteins of wheat, maize, and milk. Biochem. Jour. 26: 1923-1933. 1932.

105. Borchers, R., Totter, J. R., and Berg, C. P. Threonine deficiency in hydrolysates of zein prepared by autoclaving. Jour. Biol. Chem. 142: 697-704. 1942.

106. Braham, J. E., and Bressani, R. Utilization of calcium from lime-treated corn. Nutr. Bromotol. Toxicol. 5: 14-19. 1966.

107. Braham, J. E., Bressani, R., and Guzman, M. A. Effect of lysine and tryptophan supplementation on nicotinic acid metabolism in pigs given raw or lime-treated corn diets. Metabolism 15: 548-556. 1966.

108. Braude, R., Kon, S. K., and White, E. G. Yeast as protein supplement for pigs and its relation to appearance of rickets. Jour. Comp. Path. and Therap. 53: 161-189. 1943.

109. Bressani, R. Effect of lime-treatment on some characteristics of corn proteins. (Abstract) Fed. Proc. 16: 382. 1956.

110. Bressani, R., Aguirre, A., Elias, L. G., Arroyave, R., Jarquin, R., and Scrimshaw, N. S. All-vegetable protein mixture for human feeding. IV. Biological testing of INCAP vegetable mixture Nine in chicks. Jour. Nutr. 74: 209-216. 1961.

111. Bressani, R., Aguirre, A., and Scrimshaw, N. S. All-vegetable protein mixtures for human feeding. II. Nutritive value of corn, sorghum, rice and buckwheat substituted for lime-treated corn in INCAP vegetable mixture. Jour. Nutr. 69: 351-355. 1959.

112. Bressani, R., Braham, J. E., Elias, L. G., and De Zaghi, S. G. All-vegetable protein mixtures for human feeding. XII. Biochemical observations on rats fed INCAP vegetable mixture Nine and animal proteins. Canad. Jour. Biochem. 42: 631-639. 1964.

113. Bressani, R., Braham, J. E., Elias, L. G., and de Zaghi, S. Relationship between net protein utilization (NPU) and nitrogen efficiency ratio (NER). Nutr. Dieta. 7: 161-174. 1965.

114. Bressani, R., Castillo, S. V., and Guzman, M. A. The nutritional evaluation of processed whole corn flours. Jour. Agr. Food Chem. 10: 308-312. 1962.

115. Bressani, R., Elias, L. G., Aguirre, A., and Scrimshaw, N. S. All-vegetable protein mixture for human feeding. III. The development of INCAP vegetable mixture Nine. Jour. Nutr. 74: 201-208. 1961.

116. Bressani, R., Elias, L. G., and Scrimshaw, N. S. All-vegetable protein mixtures for human feeding. VIII. Biological testing of INCAP vegetable mixture in rats. Jour. Food Sci. 27: 203-209. 1962.

117. Bressani, R., Elias, L. G., Scrimshaw, N. S., and Guzman, M. A. Nutritive value of Central American corns. Cereal Chem. 39: 59-67. 1962.

118. Bressani, R., and Marenco, E. The enrichment of lime-treated corn flour with proteins, lysine and tryptophan and vitamins. Jour. Agr. Food Chem. 11: 517-522. 1963.

119. Bressani, R., and Mertz, E. T. Relationship of protein level to the minimum lysine requirement of the rat. Jour. Nutr. 65: 481-491. 1958.

120. Bressani, R., and Scrimshaw, N. S. Effect of lime treatment on in vitro availability of essential amino acids and solubility of protein fractions in corn. Jour. Agr. Food Chem. 6: 774-778. 1958.

121. Bressani, R., Valiente, A. T., and Tejada, C. E. All-vegetable protein mixtures for human feeding. VI. The value of combinations of lime-treated corn and cooked black beans. Jour. Food Sci. 27: 393-400. 1962.

122. Britzman, D. G., and Carlson, C. W. Amino acid additions to corn-soy diets for laying hens. Poultry Sci. 43: 1305-1306. 1964.

123. Buechler, E., and Guggenheim, K. The effect of quantitative and qualitative protein deficiency on blood regeneration. II. Hemoglobin. Blood 4: 964-969. 1949.

124. Callison, E. C., Orent-Keiles, E., and Makower, R. U. The effect of some combinations of human foods on the growth and health of the laboratory rat. Jour. Nutr. 43: 131-152. 1951.

125. Campbell, R. M., and Kosterlitz, H. W. The assay of the nutritive value of a protein by its effect on liver cytoplasm. Jour. Physiol. 107: 383-398. 1948.

126. Carpenter, K. J., and Clegg, K. M. The relative value of three cereals as protein sources for growing chicken. Brit. Jour. Nutr. 11: 358-364. 1957.

127. Carr, W. R. Observations on the nutritive value of traditionally ground cereals in Southern Rhodesia. Brit. Jour. Nutr. 15: 339-343. 1961.

128. Chick, H., Boas-Fixsen, M. A., Hutchinson, J. C. D., and Jackson, H. M. The biological value of proteins. VII. The influence of variation in the level of protein in the diet and of heating the protein on its biological value. Biochem. Jour. 29: 1712-1719. 1935.

129. Cowgill, G. R., Jones, M. H., Frisch, P. A., and Jackson, G. P. Studies on the effects of abundant cereal intake. I. The use of cereals as the chief source of calories. Jour. Amer. Med. Assoc. 89: 1770-1774. 1927.

130. Cravioto, R. O., Anderson, R. K., Lockhart, E. E., Miranda, F. deP., and Harris, R. S. Nutritive value of the Mexican tortilla. Science 102: 91-93. 1945.

131. Cravioto, R. O., and Cervantes, M. M. (Protein efficiency of corn flour enriched with soy flour and with added sesame protein.) Ciencia (Mexico) 24: 159-162. 1965.

132. Cravioto, R. O., Massieu, G. H., Cravioto, O. Y., and Figueroa, F. deM. Effect of untreated corn and Mexican tortilla upon the growth of rats on a niacin-tryptophan deficient diet. Jour. Nutr. 48: 453-459. 1952.

133. Csazky, T. Z. Improving the biological value of bread made with corn (maize) flour by the addition of extracted sunflower meal. Arch. Biol. Hung. Ser. 2, 17: 319-329. 1947.

134. Deaton, J. W., and Quisenberry, J. H. Effect of amino acid supplementation of low protein corn and grain sorghum diets on the performance of egg production stocks. Poultry Sci. 44: 943-947. 1965.

135. De Muelenaere, H., and Feldman, R. Availability of amino acids in maize. Jour. Nutr. 72: 447-450. 1960.

136. Dobbins, F. A., Krider, J. L., Hamilton, T. S., and Terrill, S. W. Comparison of high and low protein corn as evaluated by the biological value method. Jour. Anim. Sci. 9: 654. 1950.

137. Dodds, M. L. Cariogenic property of cereal food. Jour. Nutr. 71: 317-321. 1960.

138. Edwards, C. H., Thompson, E. S., and Tyson, M. H. Nitrogen balances and growth of rats fed vegetable-protein diets. Jour. Amer. Dietet. Assoc. 48: 38-44. 1966.

139. Eggert, R. G., Brinegar, M. J., and Andersen, C. R. The quality of protein corn for growing swine. Jour. Anim. Sci. 12: 282-290. 1953.

140. Fatterpaker, P., Lavale, W. V., Mulgaonkar, A. G., Noronher, J. M., Rege, D. V., Tipnis, H. P., and Sreenivasan, A. Experimental production of vitamin B_{12} deficiency in rats and mice on a maize-groundnut meal diet. Brit. Jour. Nutr. 13: 439-447. 1959.

141. Fintel, R. G. H., and Quicke, G. V. Soil fertilization and the protein, zein, essential amino acids and niacin content of maize grain. So. African Jour. Agr. Sci. 5: 165-176. 1962.

142. French, M. H. Local millets as substitutes for maize in the feeding of domestic animals. E. African Agr. Jour. 13: 217-220. 1948.

143. Gallego, J., Morales, J., Ronda Lain, E., Ruiz, P. L., and Ortin, L. (Supplementation of d-l-methionine and l-lysine using a corn-soya bean diet, with and without fish powder and powdered milk in young chickens.) Rev. Polonata. Biol. Anim. 7: 61-68. 1963.

144. Geiger, E. Experiments with delayed supplementation of incomplete amino acid mixtures. Jour. Nutr. 34: 97-111. 1947.

145. Geiger, E. The role of the time factor in feeding supplementary proteins. Jour. Nutr. 36: 813-819. 1948.

146. Geiger, E., Courtney, G. W., and Geiger, L. E. The physiological availability of some essential amino acids present in zein, in the acid and in the enzymatic hydrolyzate of zein. Arch. Biochem. Biophys. 41: 74-82. 1952.

147. Geiger, E., and Hagerty, E. B. Growth of rats on hydrolyzed zein. Arch. Biochem. 21: 239-241. 1949.

148. Gilbert, C., and Gillman, J. The supplementation of maize with navy beans (Phaseolus vulgaris). Proc. Nutr. Soc. So. Africa 2: 86-89, 1961.

149. Gilbert, C., Gillman, J., Mandelstam, J., Gillman, T., and Goldberg, L. The effect of mealie meal porridge (mealie pap) and sour milk (Maas) on the growth of albino rats. So. African Jour. Med. Sci. 8: 148-155. 1943.

150. Gillman, J. Effects on rats of prolonged feeding with staple African diet. Brit. Med. Jour. 1: 149-150. 1944.

151. Gillman, J., and Gilbert, C. The supplementation of maize, with special reference to the protein requirements. Proc. Nutr. Soc. So. Africa 1: 35-37. 1960.

152. Gillman, J., Gillman, T., Gilbert, C., and Goldberg, L. The effect of mealie-meal porridge and sour milk on the growth of albino rats. So. African Jour. Med. Sci. 8: 148-155. 1943.

153. Gillman, J., Gillman, T., Gilbert, C., and Mandelstan, J. The production of severe hepatic injury in rats by prolonged feeding on maize-meal porridge (mealie-pap) and sour milk. Brit. Jour. Expt. Path. 26: 67-81. 1945.

154. Grainger, R. B., O'Dell, B. L., and Hogan, A. G. Congenital malformations as related to deficiencies of riboflavin and vitamin B_{12}, source of protein, calcium to phosphorus ratio and skeletal phosphorus metabolism. Jour. Nutr. 54: 33-48. 1954.

155. Guggenheim, K., and Buechler, E. Nutrition and resistance to infection. The effect of quantitative and qualitative protein deficiency on the bactericidal properties and phagocytic activity of the peritoneal fluid of rats. Jour. Immanol. 58: 133-139. 1948.

156. Guggenheim, K., and Buechler, E. The effect of quantitative and qualitative protein deficiency on blood regeneration. I. White blood cells. Blood 4: 958-963. 1949.

157. Guggenheim, K., and Buechler-Czaczkes, E. The effect of quantity and quality of food proteins on the regeneration of liver protein in protein-depleted rats. Brit. Jour. Nutr. 4: 161-165. 1950.

158. Guggenheim, K., Halevy, S., and Friedmann, N. Levels of lysine and methionine in portal blood of rats following protein feeding. Arch. Biochem. Biophys. 91: 6-10. 1960.

159. Hammond, J. C. The comparison of corn, milo, and hegari in the diet of laying hens. Poultry Sci. 21: 410-415. 1942.

160. Hariharan, K., Desai, B. L. M., Venkat Rao, S., Rajalakshmi, D., and Swaminathan, M. The chemical composition and nutritive value of the proteins of hybrid maize. Jour. Nutr. and Dietet. (India) 2: 125-127. 1965.

161. Hariharan, K., Subramanya Raj Urs, T. S., Desai, B. L. M., Venkat Rao, S., Rajalakshmi, D., Swaminathan, M., and Parpia, H. A. B. Effect of supplementing poor Indian diets based on kaffir corn, pearl millet and maize with vitamins and minerals and fortified and unfortified groundnut flour on the nutritive value of the diets as judged by the growth of rats and on the protein efficiency ratio. Jour. Nutr. and Dietet. (India) 2: 196-201. 1965.

162. Harper, A. E., Winje, M. E., Benton, D. A., and Elvehjem, C. A. Effect of amino acid supplements on growth and fat deposition in the livers of rats fed polished rice. Jour. Nutr. 56: 187-198. 1955.

163. Harris, H. A., Neuberger, A., and Sanger, F. Lysine deficiency in young rats. Biochem. Jour. 37: 508-513. 1943.

164. Harrison, H. C., and Long, C. N. H. Regeneration of liver protein in the rat. Jour. Biol. Chem. 161: 545-557. 1945.

165. Hart, E. B., and Humphrey, G. C. The comparative efficiency for growth of the total nitrogen from alfalfa hay and the corn grain. Jour. Biol. Chem. 13: 133. 1912-13.

166. Hart, E. B., and Humphrey, G. C. The comparative efficiency for milk production of the nitrogen of alfalfa hay and the corn grain. Jour. Biol. Chem. 19: 127. 1914.

167. Hart, E. B., and McCollum, E. V. Influence on growth of rations restricted to the corn or wheat grain. Jour. Biol. Chem. 19: 373-395. 1914.

168. Hart, E. B., Miller, W. S., and McCollum, E. V. Further studies on the nutritive deficiencies of wheat and grain mixtures and the pathological conditions produced in swine by their use. Jour. Biol. Chem. 25: 239-260. 1916.

169. Hart, E. B., Nelson, V. E., and Pitz, W. Synthetic capacity of the mammary gland. I. Can this gland synthesize lysine? Jour. Biol. Chem. 36: 291-307. 1918.

170. Hart, E. B., and Steenbock, H. At what level do the proteins of milk become effective supplements to the proteins of a cereal grain? Jour. Biol. Chem. 42: 167. 1920.

171. Hemphill, F., Koening, R. A., and Winters, J. Nutritive adequacy of certain low-cost food mixtures. Jour. Nutr. 25: 285-293. 1943.

172. Heywang, B. W., and Morgan, R. B. The comparative value of yellow corn, yellow milo, and hegari in a diet for growing chicks. Poultry Sci. 11: 307-317. 1932.

173. Hoagland, R., and Snider, G. G. The value of beef protein as a supplement to the proteins in certain vegetable products. Jour. Agr. Res. 34: 297-308. 1927.

174. Hogan, A. G. Corn as a source of protein and ash for growing animals. Jour. Biol. Chem. 29: 484-493. 1917.

175. Hogan, A. G., Gillespie, G. T., Kocturk, O., O'Dell, B. L., and Flynn, L. The percentage of protein in corn and its nutritional properties. Jour. Nutr. 57: 225-239. 1955.

176. Hogan, A. G., Powell, E. L., and Guerrant, R. E. Anemia from lysine deficiency in deaminized casein. Jour. Biol. Chem. 137: 41. 1941.

177. Hove, E. L., Carpenter, L. E., and Harrell, C. G. The nutritive quality of some plant proteins and the supplemental effect of some protein concentrates on patent flour and whole wheat. Cereal Chem. 22: 287-295. 1945.

178. Howe, E. E. Amino acid supplementation. Borden's Rev. Nutr. Res. 19: 19-34. 1958.

179. Howe, E. E., Jansen, G. R., And Gilfillan, E. W. Amino acid supplementation of cereal grains as related to the world food supply. Amer. Jour. Clin. Nutr. 16: 315-320. 1965.

180. Hughes, C. W., and Hauge, S. M. Nutritive value of distillers' dried solubles as a source of protein. Jour. Nutr. 30: 245-258. 1945.

181. Jacquot, R., and Abraham, J. Influence des traitements industriels et menagers sur la valeur nutritive des aliments protidiques. Biblio. Nutr. et Dieta. 7: 43-68. 1965.

182. Johns, C. O., Finks, A. J., and Paul, M. S. Studies in nutrition. III. The nutritive value of commercial corn gluten meal. Jour. Biol. Chem. 41: 391. 1920.

183. Jones, D. B. Sex differences in the growth of young rats and survival of adult rats fed protein deficient diets. Jour. Nutr. 44: 465-476. 1951.

184. Jones, D. B., Caldwell, A., and Widness, K. D. Comparative growth-promoting values of the proteins of cereal grains. Jour. Nutr. 35: 639-650. 1948.

185. Jones, D. B., Finks, A. J., and Johns, C. O. Nutritive value of mixtures of proteins from corn and various concentrates. Jour. Agr. Res. 24: 971. 1923.

186. Jones, D. B., and Widness, K. D. The comparative growth-promoting value oi the proteins of wheat germ, corn germ, and some other protein foods of plant and animal origin. Jour. Nutr. 31: 675-683. 1946.

187. Joseph, K , Rao, M. N., Swaminathan, M., Sankaran, A. N.,Paul Jayaraj, A., and Subrahmanyan, V. The supplementary value of certain processed protein foods based on blends of peanut, soybean, sesame, chick pea (Cirer arietinum) flours and skim milk powder to a maize-tapioca diet. Brit. Jour. Nutr. 16: 49-57. 1962.

188. Kemmerer, R. R., and Heywang, B. W. A comparison of various varieties of sorghum as substitute for corn in practical chick diets. Poultry Sci. 44: 260-264. 1965.

189. Kik, M. C. Nutritive value of buffalo fish: Value in improving cereal grains. Jour. Amer. Dietet. Assoc. 41: 119-123. 1962.

190. Klein, A., Harrow, B., Pine, L., and Funk, C. The nutritive value of various layers of the wheat and corn kernel. Amer. Jour. Physiol. 76: 237-246. 1926.

191. Kligler, D., and Krehl, W. A. Lysine deficiency in rats. I. Studies with zein diets. Jour. Nutr. 41: 215-228. 1950.

192. Kodicek, E., Braude, R., Kon, S. K., and Mitchell, K. G. The effect of alkali hydrolysis of maize on the availability of its nicotinic acid to the pig. Brit. Jour. Nutr. 10: 51-66. 1956.

193. Kodicek, E. M., Carpenter, K. J., and Harris, L. J. Pellagragenic action of maize. Further experiments. Lancet 2: 616-617. 1947.

194. Krehl, W. A., Sarma, P. S., and Elvehjem, C. A. The effect of protein on the nicotinic and tryptophan requirement of the growing rat. Jour. Biol. Chem. 162: 403-411. 1946.

195. Krehl, W. A., Sarma, P. S., Teply, L. J., and Elvehjem, C. A. Factors affecting the dietary niacin and tryptophan requirement of the growing rat. Jour. Nutr. 31: 85. 1946.

196. Krehl, W. A., Teply, L. J., and Elvehjem, C. A. Corn as an etiological factor in the production of a nicotinic acid deficiency in the rat. Science 101: 283. 1945.

197. Krehl, W. A., Teply, L. J., and Elvehjem, C. A. Effect of corn grits on nicotinic acid requirements of the dog. Proc. Soc. Expt. Biol. Med. 58: 334-337. 1945.

198. Krehl, W. A., Teply, L. J., Sarma, P. S., and Elvehjem, C. A. Growth and retarding effect of corn in nicotinic acid-low rations and its counter-action by tryptophan. Science 101: 489-490. 1945.

199. Krishnan, T. S., Thakral, B. M., and Tandon, H. P. Jowar (Sorghum vulgare) as a substitute for yellow maize in poultry rations. (Abstract) Proc. Indian Sci. Cong. 40: 56. 1953.

200. Laguna, J., and Carpenter, K. J. Raw vs processed corn in niacin deficient diets. Jour. Nutr. 45: 21-28. 1951.

201. Le Riche, F. J. H., and Le Riche, H. Fortified maize and kaffir corn mixtures. So. African Med. Jour. 20: 59-62. 1946.

202. Liu, J. H., and Chu, G. K. Problems of nutrition and dietary requirements of China. Chinese Med. Jour. 61: 95-109. 1943.

203. McCollum, E. V. The value of the proteins of cereal grains and of milk for growth in the pig, and the influence of the plane of protein intake on growth. Jour. Biol. Chem. 19: 323-333. 1914.

204. McCollum, E. V., and Davis, M. The influence of certain vegetable fats on growth. Jour. Biol. Chem. 21: 179-182. 1915.

205. McCollum, E. V., and Simmonds, N. A biological analysis of pellagra-producing diets. I. The dietary properties of mixtures of maize kernel and beans. Jour. Biol. Chem. 32: 29-61. 1917.

206. McCollum, E. V., and Simmonds, N. A biological analysis of pellagra-producing diets. III. The values of some seed proteins for maintenance. Jour. Biol. Chem. 32: 347-368. 1917.

207. McCollum, E. V., and Simmonds, N. A biological analysis of pellagra-producing diets. IV. The cause of failure of mixtures of seeds to promote growth in young animals. Jour. Biol. Chem. 33: 303-311. 1918.

208. McCollum, E. V., and Simmonds, N. The nursing mother as a factor of safety in the nutrition of the young. Amer. Jour. Physiol. 46: 275-313. 1918.

209. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary relationships between proteins of certain seeds. Jour. Biol. Chem. 37: 155-178. 1919.

210. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary protein values in foods. III. The supplementary dietary relations between the proteins of the cereal grains and the potato. Jour. Biol. Chem. 47: 175-206. 1921.

211. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary protein values in foods. IV. The supplementary relations of cereal grain with cereal grain; legume seed with legume seed; and cereal grain with legume seed; with respect to improvement in the quality of their proteins. Jour. Biol. Chem. 47: 207-234. 1921.

212. McCollum, E. V., Simmonds, N., and Pitz, W. The vegetarian diet in the light of our present knowledge of nutrition. Amer. Jour. Physiol. 41: 333-360. 1916.

213. McCollum, E. V., Simmonds, N., and Pitz, W. Dietary deficiencies of the maize kernel. Jour. Biol. Chem. 28: 153-165. 1916-17.

214. McCollum, E. V., Simmonds, N., and Pitz, W. Is lysine the limiting amino acid in the protein of wheat, maize or oats. Jour. Biol. Chem. 28: 483-500. 1916-17.

215. McCollum, E. V., Simmonds, N., and Pitz, W. The supplementary dietary relationship between leaf and seed as contrasted with combinations of seed with seed. Jour. Biol. Chem. 30: 13-32. 1917.

216. Madden, S. C., and Whipple, G. H. Plasma proteins: Their source, production and utilization. Physiol. Rev. 20: 194-217. 1940.

217. Mangay, A. S., Pearson, W. N., and Darby, W. J. Millet (Setaria italica): Its amino acid and niacin content and supplementary value for corn (maize). Jour. Nutr. 62: 377-393. 1957.

218. Marais, J. S. C., and Smuts, D. B. The biological value of the proteins of maize and maize supplemented with lysine and tryptophan. Onderstepoort Jour. Vet. Sci. 15: 197-204. 1940.

219. Marais, J. S. C., and Smuts, D. B. The amino acid deficiency of certain plant proteins and the supplementary effect between plant proteins as measured by means of their biological values. Onderstepoort Jour. Vet. Sci. 15: 225-232. 1940.

220. Marais, J. S. C., and Smuts, D. B. Further studies on the amino acid deficiencies of plant proteins. Onderstepoort Jour. Vet. Sci. 15: 387-402. 1940.

221. Maynard, L. A., Fronda, F. M., and Chen, T. C. The protein efficiency of combinations of cornmeal and certain other feeding stuffs, notably rice bran. Jour. Biol. Chem. 55: 145-155. 1923.

222. Meade, R. J., Dukelow, W. R., and Grant, R. S. B-Lysine and methionine additions to corn-soybean meal diets for growing swine. Effects on rate and efficiency oi gain and carcass characteristics. Jour. Anim. Sci. 25: 78-82. 1966.

223. Mendel, L. B., and Fine, M. S. Studies in nutrition. III. The utilization of the proteins of corn. Jour. Biol. Chem. 10: 345-352. 1911.

224. Mertz, E. T., Bates, L. S., and Nelson, O. E. Mutant gene that changes protein composition and increases lysine content of maize endosperm. Science 145: 279-280. 1964.

225. Mertz, E. T., Veron, O. A., Bates, L. S., and Nelson, O. E. Growth of rats fed on opaque-2-maize. Science 148: 1741-1742. 1965.

226. Miller, D. S., and Bender, A. E. The determination of the net protein utilization of proteins by a shortened method. Brit. Jour. Nutr. 9: 383-388. 1955.

227. Miller, D. L., Marion, M. W., and Balloun, S. L. Amino acid supplementation of corn-soybean meal turkey starter diets. Poultry Sci. 43: 1943. 1964.

228. Mitchell, H. H. The biological value of proteins at different levels of intake. Jour. Biol. Chem. 58: 905-922. 1924.

229. Mitchell, H. H. The supplementary relations among proteins. Jour. Biol. Chem. 58: 923-929. 1924.

230. Mitchell, H. H. A method of determining the biological value of protein. Jour. Biol. Chem. 58: 873-903. 1924.

231. Mitchell, H. H., and Beadles, J. R. Corn germ: A valuable protein food. Science 99: 129-130. 1944.

232. Mitchell, H. H., and Block, R. J. Some relationships between the amino acid contents of proteins and their nutritive values for the rat. Jour. Biol. Chem. 163: 599-620. 1946.

233. Mitchell, H. H., Hamilton, T. S., and Beadles, J. R. The nutritional effects of wheat on food proteins, with particular reference to commercial and home cooking. Jour. Nutr. 39: 413-425. 1949.

234. Mitchell, H. H., Hamilton, T. S., and Beadles, J. R. The relationship between the protein content of corn and the nutritional value of the protein. Jour. Nutr. 48: 461-476. 1952.

235. Mitchell, H. H., and Villegas, V. The nutritive value of the proteins of coconut meal, soy beans, rice bran and corn. Jour. Dairy Sci. 6: 222-236. 1923.

236. Mohandes, A. E., and Wertz, A. W. Nutritive value of fenugreek as a supplement to Egyptian corn diet. Fed. Proc. 14: 446. 1955.

237. Morgan, A. F., and King, F. B. Changes in biological value of proteins due to heat treatment. Proc. Soc. Expt. Biol. Med. 23: 353-355. 1926.

238. Morgan, A. F., King, F. B., Boyden, R. E., and Petro, V. A. The effect of heat upon the biological value of cereal proteins and casein. Jour. Biol. Chem. 90: 771-792. 1931.

239. Mosqueda-Suarez, A. Valeur biologigul des melanges; arepa-viande, arepa-fronnage, arepa-haricot noirs. Ann. de la Nutr. et de l'Aliment. 13: 33-37. 1959.

240. Munro, H. N., Steele, M. H., and Hutchinson, W. C. Action of dietary proteins and amino acids on the rat adrenal gland. Brit. Jour. Nutr. 19: 137-147. 1965.

241. Murray, H. C. The biological value of the protein of field pea products with a comparison of several methods used for this determination. Jour. Nutr. 35: 257-267. 1948. (vs maize)

242. Nasset, E. S., Ganapathy, S. N., and Goldsmith, D. P. Amino acids in dog blood and gut after feeding zein. Jour. Nutr. 81: 343-347. 1963.

243. Nasset, E. S., Schwartz, P., and Weiss, H. V. The digestion of proteins in vivo. Jour. Nutr. 56: 83-94. 1955.

244. Nelson, O. E. Mutant genes that change the composition of maize endosperm proteins. Fed. Proc. 25: 1676-1678. 1966.

245. Nevens, W. B. The proteins of cottonseed meal. II. Nutritive value. (with corn) Jour. Dairy Sci. 4: 552-588. 1921.

246. Oltjen, R. R., Putnam, P. A., Williams, E. E., and Davis, R. E. Wheat versus corn in all-concentrate cattle rations. Jour. Anim. Sci. 25: 1000-1004. 1966.

247. Osborne, T. B., and Mendel, L. B. Nutritive properties of proteins of the maize kernel. Jour. Biol. Chem. 18: 1-16. 1914.

248. Osborne, T. B., and Mendel, L. B. The amino acid minimum for maintenance and growth, as exemplified by further experiments with lysine and tryptophan. Jour. Biol. Chem. 25: 1-12. 1916.

249. Osborne, T. B., and Mendel, L. B. The relative value of certain proteins and protein concentrates as supplements to corn gluten. Jour. Biol. Chem. 29: 69-92. 1917.

250. Osborne, T. B., and Mendel, L. B. Nutritive factors in plant tissues. I. The protein factor in the seeds of cereals. Jour. Biol. Chem. 34: 521-535. 1918.

251. Osborne, T. B., and Mendel, L. B. Skimmed milk as a supplement to corn in feeding. Jour. Biol. Chem. 44: 1-4. 1920.

252. Ozment, D. D., Dunkelgod, K. E., Tonkinson, L. V., Gleaves, E. W., Thayer, R. H., and Davies, F. F. Comparing milo and corn in broiler diets on an equivalent nutrient intake basis. Poultry Sci. 42: 472-481. 1963.

253. Patwardhan, V. N. Protein element in Indian nutrition. Indian Jour. Med. Sci. 10: 1-18. 1956.

254. Payne, L. F. The comparative nutritive value of sorghum grain, corn, and wheat as poultry feeds. Kan. Agr. Expt. Sta. Bul. 268, 32 pp. 1934.

255. Pearson, W. N., Stempfel, S. J., Valenzuela, J. S., Attey, M. H., and Darby, W. J. The influence of cooked vs raw maize on the growth of rats receiving a 9% casein ration. Jour. Nutr. 62: 445-463. 1957.

256. Pellet, P. L., and Platt, B. S. A dietary defect in maize developed during treatment with lime. Nature 177: 422-424. 1956.

257. Pond, W. G., Hillier, J. C., and Mac Vicar, R. V. Amino acid supplementation to corn and milo rations for growing pigs. Jour. Anim. Sic. 12: 928. 1953.

258. Rama Rao, P. B., Norton, H. W., and Johnson, B. C. The amino acid composition and nutritive value of proteins. V. The amino acid requirements as a pattern for protein evaluation. Jour. Nutr. 88: 88-92. 1964.

259. Rao, G. R., Indira, K., Ramanathan, G., and Chandrasekhara, M. R. Infant food based on coconut protein, groundnut protein isolate and skim milk powder. II. Overall growth promoting value to poor cereal diets. Jour. Sci. Food and Agr. 15: 841-846. 1964.

260. Rao, M. N., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. Nutritive value of certain cereals and cereal diets consumed in India. Food Sci. (Mysore) 10: 163-175. 1961. (A review.)

261. Reese, N. A., Muggenburg, B. A., Kawalczyk, T., Hoekstra, W. G., and Grummer, R. H. Effects of corn, wheat, oats, and alfalfa leaf meal on the development of gastric ulcers in swine. Jour. Anim. Sci. 25: 21-24. 1966.

262. Reid, J. V. O., and Berjak, P. Dietary production of myocardial fibrosis in the rat. Amer. Heart Jour. 71: 240-250. 1966.

263. Roets, P. P., Meyer, B. J., and Holemans, K. Pair feeding experiments with a high protein food mixture. Proc. Nutr. Soc. So. Africa 3: 107. 1962.

264. Rosenberg, H. R. Supplementation of food with amino acids. Jour. Agr. Food Chem. 7: 316-321. 1959.

265. Rosenberg, H. R., Rohdenburg, E. L., and Eckert, R. E. Multiple amino acid supplementation of white cornmeal. Jour. Nutr. 72: 415-422. 1960.

266. Sanchez, A., Scharffenberg, J. A., and Register, U. D. Nutritive value of selected proteins and protein combinations. I. The biological value of proteins singly and in meal patterns with varying fat composition. Amer. Jour. Clin. Nutr. 13: 243-249. 1963.

267. Sanchez, A., Scharffenberg, J A., and Register, U. D. Nutritive value of selected proteins and protein combinations. II. Biological value predictability. Amer. Jour. Clin. Nutr. 13: 250-253. 1963.

268. Sauberlich, H. E., Chang, W. Y., and Salmon, W. D. The comparative nutritional value of corn of high and low protein content for growth in the rat and chick. Jour. Nutr. 51: 623-635. 1953.

269. Schulz, J. A., and Thomas, B. H. The biological value of the proteins of corn germ and endosperm wet-milled experimentally. Cereal Chem. 26: 67-71. 1949.

270. Scrimshaw, N. S., and Bressani, R. Vegetable protein mixtures for human consumption. In V Internatl. Cong. on Nutr., Washington, D.C., Panel II, Proteins and Amino Acids in Nutrition, pp. 20-28. 1960.

271. Scrimshaw, N. S., and Bressani, R. Vegetable protein mixtures for human consumption. Fed. Proc. 20, Suppl. 7: 80-88. 1961.

272. Shils, M. E., Friedland, I., and Stewart, W. B. Rapid development of portal fatty liver in rats consuming various plant materials. Proc. Soc. Expt. Biol. Med. 87: 483. 1954.

273. Shils, M. E., and Stewart, W. B. Development of portal fatty liver in rats on corn diets: Response to lipotropic agents. Proc. Soc. Expt. Biol. Med. 85: 298-303. 1954.

274. Shils, M. E., and Stewart, W. B. Preventive influence of certain amino acids on cassava experimental fatty liver of portal type. Proc. Soc. Expt. Biol. Med. 87: 629-631. 1954.

275. Shurpalekar, S. R., and others. Studies on spray-dried infant food based on peanut protein isolate and full fat soy flour. III. Supplementary value to a maize-tapioca diet. Food Tech. 18: 903-906. 1964.

276. Shurpalekar, S. R., Paul Jayaraj, A., Moorjani, M. N., Lahiry, N. L., Sankaran, A. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of fish flour and a protein food containing low-fat peanut flour, Bengal gram flour and fish flour to a corn-tapioca diet. Food Sci. (Mysore) 11: 52-56. 1962.

277. Sidransky, H. Chemical pathology of nutritional deficiency induced by certain plant proteins. Jour. Nutr. 71: 387-399. 1960.

278. Sirinit, K., Soliman, A. G. M., Van Loo, A. T., and King, K. W. Nutritional value of a Haitian cereal-legume blend. Jour. Nutr. 86: 415-423. 1965.

279. Smith, M. C. The comparative nutritive value of yellow corn and the grain sorghums hegari and yellow milo. Jour. Agr. Res. 40: 1129-1145. 1930.

280. Squibb, R. L., Braham, J. E., Arroyave, G., and Scrimshaw, N. S. Supplementation of low tryptophan-niacin deficient diets with beans and lime-treated corn. Fed. Proc. 14: 451. 1955.

281. Squibb, R. L., Wyld, M. K., Scrimshaw, N. S., and Bressani, R. All-vegetable protein mixtures for human feeding. I. Use of rats and baby chicks for evaluation of corn-based vegetable mixtures. Jour. Nutr. 69: 343-350. 1959.

282. Stammers, A. D. The nutritive value of maize meal and kaffir corn. Med. Jour. So. Africa 21: 62-65. 1925.

283. Sure, B. Amino acids in nutrition. III. Is proline a growth-limiting factor in the proteins of peas (Vicia sativa)? What nucleus in zein is responsible for supplementing these proteins? Jour. Biol. Chem. 46: 443. 1921.

284. Sure, B. Nutritional improvement of cereal flours and cereal grains. Jour. Amer. Dietet. Assoc. 22: 494-502. 1946.

285. Sure, B. The nature of the supplementary value of the proteins in milled cornmeal and milled wheat flour with dried food yeasts. Jour. Nutr. 36: 59-63. 1948.

286. Sure, B. Relative supplementary values of dried food yeasts, soybean flour, peanut meal, dried nonfat milk solids and dried buttermilk to the proteins in milled cornmeal and milled enriched wheat flour. Jour. Nutr. 36: 65-73. 1948.

287. Sure, B. Nutritional improvement of cereal grains with small amounts of foods of high protein content. Ark. Agr. Expt. Sta. Bul. 493, 62 pp. 1950.

288. Sure, B. Nutritional values of proteins in various cereal breakfasts foods. Food Res. 16: 161-165. 1951.

289. Sure, B. Nutritive value of proteins in buckwheat and their role as supplements to proteins in cereal grains. Jour. Agr. Food Chem. 3: 793-795. 1955.

290. Sure, B. The addition of small amounts of defatted fish flour to whole yellow corn, whole wheat, whole and milled rye, grain sorghum and millet. I. Influence on growth and protein efficiency. Jour. Nutr. 63: 409-416. 1957.

291. Sure, B. Relative nutritive values of proteins in various foods at increasing high levels of protein intake. Jour. Agr. Food Chem. 5: 463-464. 1957.

292. Sure, B., Easterling, L., Dowell, J., Crudup, M., and Scrimshaw, N. S. Protein efficiency; improvement in whole yellow corn with lysine, tryptophan, and threonine. Jour. Agr. Food Chem. 1: 626-629. 1953.

293. Sure, B., Easterling, L., Dowell, J., and Crudup, M. Protein supplementation. Relationships between milled rice and milled white cornmeal. Jour. Agr. Food Chem. 1: 1207-1208. 1953.

294. Sure, B., Easterling, L., Dowell, J., and Crudup, M. The addition of small amounts of defatted fish flour to milled wheat flour, cornmeal and rice. Influence on growth and protein efficiency. Jour. Nutr. 61: 547-554. 1957.

295. Swaminathan, M. Relative value of proteins of certain foodstuffs in nutrition. IV. Supplementary value; studied by balance sheet method using adult rats, and with growth method using young rats. Indian Jour. Med. Res. 25: 399-426. 1937.

296. Swaminathan, M. The nicotinic acid content of the tissues of monkeys fed on wheat, maize and rice diets. Indian Jour. Med. Res. 28: 91-99. 1940.

297. Tamura, E., Kobatake, Y., Niizeki, S., and Matsuno, N. Effects of lysine supplementation to cereal protein on the free threonine levels in the plasma and tissues of rats. Ann. Rpt. Tanabe Amino Acid Res. Found., Osaka, Japan, p. 12-13. 1966.

298. Tasker, P. K., Joseph, A. A., Parthasarthy, H. N., and others. Supplementary value of groundnut flour and blends of groundnut flour with skim milk powder to a poor maize diet. Ann. Biochem. Expt. Med. 23: 261-270. 1963.

299. Tasker, P. K., Paul Jayaraj, A., and others. Supplementary value of a high protein food based on groundnut protein isolate to a maize-tapioca diet. Food Sci. (Mysore) 11: 205-210. 1962.

300. Tasker, P. K., Paul Jayaraj, A., Rao, M. N., Indiramma, K., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of groundnut flour and blends of groundnut flour and skim milk powder to a maize-tapioca diet. Food Sci. (Mysore) 11: 181-186. 1962.

301. Tasker, P. K., Rao, M. N., Paul Jayaraj, A., Indiramma, K., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of peanut flour, chickpea flour, and skim milk powder and their blends to maize-tapioca diet. Indian Jour. Med. Res. 50: 468-477. 1962.

302. Tasker, P. K., Rao, M. N., and Swaminathan, M. Supplementary value of a processed protein food based on a blend of coconut meal, groundnut flour and Bengal gram flour to poor Indian diets based on different cereals and millets. Jour. Nutr. and Dietet. (India) 1: 95-97. 1964.

303. Tasker, P. K., Rao, M. N., Swaminathan, M., Sankaran, A. N., Paul Jayaraj, A., and Subrahmanyan, V. The supplementary value of a low cost protein food based on a blend of peanut, coconut and chickpea flours to a maize-tapioca diet. Jour. Agr. Food Chem. 9: 413-416. 1961.

304. Tello, F., Alvarez-Tostado, M. A., and Alvarado, G. A study on the improvement of the essential amino acid balance of corn protein. I. Correlation between racial and varietal characteristics and lysine levels of corn. Cereal Chem. 42: 368-384. 1965.

305. Vars, H. M., and Gurd, F. N. Affect of dietary protein upon the regeneration of liver protein in the rat. Amer. Jour. Physiol. 151: 399-404. 1947.

306. Venkat Rao, S., Daniel, A., Panemangalore, M., Tasker, P. K., Paul, Jayaraj, A., Acharya, U. S. V., Parthasarathy, L., and Rao, M. N. Studies on a processed protein food based on a blend of groundnut flour and full fat soya flour fortified with essential amino acids, vitamins and minerals. III. Supplementary value to a maize-tapioca diet. Jour. Nutr. Dietet. (India) 1: 8-13. 1964.

307. Welch, J. G., Cordts, R. H., and Vander Noot, G. W. Effect of lysine methionine and tryptophan supplementation upon nitrogen retention of barrows. Jour. Anim. Sci. 25: 806-808. 1966.

308. Wheeler, R. Feeding experiments with mice. Jour. Expt. Zool. 15: 209-223. 1913.

309. Woolley, D. W. Occurrence of a pellagragenic agent in corn. Jour. Biol. Chem. 163: 773-774. 1946.

MILLETS AND SORGHUMS[1/]

Human Studies

1. Adolph, W. H., and Wang, T. C. The digestibility of wheat and millet proteins. Chinese Med. Jour. 48: 59-61. 1934.

2. Aykroyd, W. R., and Krishnan, B. G. The effect of skimmed milk, soyabean and other foods in supplementing typical Indian diets. Indian Jour. Med. Res. 24: 1093-1106. 1937.

3. Aykroyd, W. R., and Krishnan, B. G. Diet surveys in South Indian villages. Indian Jour. Med. Res. 24: 667-688. 1937.

4. Burgess, H. J. L. Cereal foods used in Uganda. I. Millets and sorghum. East. African Med. Jour. 39: 437-442. 1962.

5. Corkill, N. L. Pellagra in Sudanese millet-eaters. Lancet 226: 1387-1390. 1934.

6. Corkill, N. L. Malnutrition in Sudanese millet-eaters, a follow-up. Jour. Trop. Med. Hyg. 53: 125-136. 1950.

7. Daniel, V. A., Leela, R., Doraiswamy, T. R., Rajalakshmi, D., Venkat Rao, S., Swaminathan, M., and Parpia, H. A. B. The effect of supplementing a poor Indian ragi diet with l-lysine and dl-threonine on the digestibility coefficient, biological value and net utilization of the proteins and on nitrogen retention in children. Jour. Nutr. and Dietet. (India) 2: 138-143. 1965.

8. Daniel, V. A., Leela, R., Doraiswamy, T. R., Rajalakshmi, D., Venkat Rao, S., Swaminathan, M., and Parpia, H. A. B. The effect of supplementing a poor kaffir corn (Sorghum vulgare) diet with l-lysine and dl-lysine on the digestibility coefficient, biological value and net utilization of protein and retention of nitrogen in children. Jour. Nutr. and Dietet. (India) 3: 10-14. 1966.

9. De Maeyer, E. M., and Vanderborght, H. L. Determination of the nutritive value of different protein foods in the feeding of African children. In Meeting Protein Needs of Infants and Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 143-155. 1961.

1/ Includes kaffir corn, fonio, stapf, and teff.

10. Doraiswamy, T. R., Tasker, P. K., Rajagopalan, R., Sankaran, A. N., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Effect of supplementary proteins food based on a blend of peanut flour and skim milk powder fortified with vitamins and minerals on the growth and nutritional status of undernourished weaned children. Food Sci. (Mysore) 11: 193-196. 1962.

11. Gopalan, C. A report of some recent studies on protein malnutrition in India. In Progress in Meeting Protein Needs of Infants and Preschool Children. Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 211-225. 1961.

12. Heupke, W. (Utilization of millet and buckwheat.) Deut. Arch. Klin. Med. 176: 32-37. 1933.

13. Joseph, K., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. Metabolism of nitrogen, calcium and phosphorus in children on a poor vegetarian diet based on ragi (Eleusine coracana). Food Sci. (Mysore) 7: 324-325. 1958.

14. Joseph, K., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. V. The effect of partial or complete replacement of rice in poor vegetarian diets by ragi (Eleusine coracana) on the metabolism of nitrogen, calcium and phosphorus. Brit. Jour. Nutr. 13: 213-218. 1959.

15. Joseph, K., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. The effects of partial or complete replacement of rice in poor vegetarian diets by ragi (Eleusine coracana) on the metabolism of nitrogen, calcium and phosphorus in children. Food Sci. (Mysore) 8: 11-12. 1959.

16. Karambelkar, P. V., Patwardhan, V. N., and Sreenivasan, A. Studies in protein metabolism. Further observations on the influence of dietary protein on urinary nitrogen excretion. Indian Jour. Med. Res. 38: 241-254. 1950.

17. Karambelkar, P. V., Patwardhan, V. N., and Sreenivasan, A. Studies in protein metabolism. Creatine excretion in urine in relation to sources of dietary protein. Indian Jour. Med. Res. 40: 89-93. 1952.

18. Kung, L. C., and Fang, W-Y. A preliminary report on the nitrogen metabolism of preschool children. Chinese Jour. Physiol 9: 375-382. 1935.

19. Kurien, P. P., Rao, M. N., Swaminathan, M., Sankaran, A. N., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in children on a jowar (Sorghum vulgare) diet. Ann. Biochem. Expt. Med. 20: 47-52. 1960.

20. Kurien, P. P., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. VI. The effect of partial or complete replacement of rice in poor vegetarian diets by kaffir corn (Sorghum vulgare). Brit. Jour. Nutr. 14: 339-345. 1960.

21. Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in undernourished children. VII. The effect of partial or complete replacement of rice in poor vegetarian diets by pearl millet (Pennisetum typhoideum). Brit. Jour. Nutr. 15: 345-347. 1961.

22. Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. The metabolism of nitrogen, calcium and phosphorus in children on a poor Indian diet based on bajra (Pennisetum typhoideum). Ann. Biochem. Expt. Med. 21: 41-46. 1961.

23. McCarrison, R. The causation of stone in India. Brit. Med. Jour. 3675: 1009-1015. 1931.

24. Patwardhan, V. N. Nutritive value of cereal and pulse proteins. In Progress in Meeting Protein Needs of Infants and Preschool Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 201-210. 1961.

25. Ramamurthi, K. Studies on the nitrogen partition in the urine of Rajasthanis. Indian Jour. Med. Res. 43: 61-69. 1955.

26. Rao, S. V., Pantulu, A. J., Swaminathan, M., and Subrahmanyan, M. V. Supplementary values of low fat groundnut flour to poor vegetarian diet based on jowar and ragi. Ann. Biochem. Expt. Med. 8: 33-38. 1958.

27. Rao, S. V., Swaminathan, M., and Parpia, H. A. B. Mutual supplementation of dietary proteins for meeting protein needs and overcoming protein shortage in developing countries. Jour. Nutr. and Dietet. (India) 1: 128-138. 1964.

28. Reddy, S. K., Sur, G., Doraiswamy, T. R., Sankaran, A. M., Swaminathan, M., and Subrahmanyan, V. Effect of supplementary composite protein foods on the growth and nutritional status of school children. Indian Jour. Physiol. Allied Sci. 8: 26-33. 1954.

29. Senecal, J. The treatment and prevention of kwashiorkor in French West Africa. Ann. N. Y. Acad. Sci. 69: 916-953. 1958.

30. Senecal, J. Studies on the use of peanut flour (with millets) in infant feeding. In Meeting Protein Needs of Infants and Children, Natl. Acad. Sci.-Natl. Res. Council Pub. 843, pp. 119-142. 1961.

31. Someswara Rao, K., Ramanathan, M. K., Tasker, A. D., and Phansalkar, S. V. The failure of vitamin B_{12} to promote growth in undernourished Indian children. Indian Jour. Med. Res. 43: 277-283. 1955.

32. Subrahmanyan, V., Rao, M. N., Rama Rao, G., and Swaminathan, M. The metabolism of nitrogen, calcium and phosphorus in human adults on a poor vegetarian diet containing ragi (Eleusine coracana). Brit. Jour. Nutr. 9: 350-357. 1955. Also: Bul. Cent. Food Tech. Res. Inst. 4: 87-88. 1955.

33. Subrahmanyan, V., Rao, M. N., Joseph, K., and Swaminathan, M. The place of processed food supplements in school feeding programme. Bul. Cent. Food Tech. Inst. 5: 314-317. 1956.

34. Subrahmanyan, V., Swaminathan, M., Bhatia, D. S., Bains, G. S., Sur, G., Bhagwan, R. K., Doraiswamy, T. R., Anandaswamy, B., and Sankaran, A. N. Effect of replacing rice in the diet by composite jowar (Sorghum vulgare) vermicelli on the health and nutritional status of children. Bul. Cent. Food Tech. Res. Inst. 3: 245-247. 1954.

35. Swaminathan, M. The relative amounts of the protein and nonprotein nitrogenous constituents occurring in foodstuffs and their significance in the determination of the digestibility coefficient of proteins. Indian Jour. Med. Res. 25: 847-855. 1938.

36. Wang, C. F. Digestibility of Kao-liang. Chinese Jour. Physiol. 10: 645-650. 1936.

37. Acharya, B. N., Niyogi, S. P., and Patwardhan, V. N. Balanced diets. III. Effect of parching on the biological value of the proteins of some cereals and pulses. Indian Jour. Med. Res. 30: 73-80. 1942.

38. Adolph, W. H., and Cheng, F. W. The biological value of mixed cereal proteins. Chinese Jour. Physiol. 9: 245-252. 1935.

39. Adrian, J., and Jacquot, R. Essais compares de supplementation d'une ration a base de sorgho et d'arachide par la farine de poisson on par des acides amines purs. (Comparative studies in supplementing a sorghum and peanut basic ration with fishmeal or with pure amino acids.) Ann. Nutr. Aliment. 15: 227-237. 1961.

40. Adrian, J., and Jacquot, R. Le sorgho et les mils en alimentation humaine et animale. Vigot Freres, Paris, 187 pp. 1964.

41. Adrian, J., and Sayerse, C. Les plantes alimentaires de l'Ouest Africain I-II. Reserches sur l'Aliment. et la Nutr. Afr. 167 pp. 1954.

42. Agarwala, O. N., and Mahadevan, V. Studies on the toxicity and nutritive value of fungus-free Paspalum scorbiculatum grains. Indian Vet. Jour. 41: 43-47. 1964.

43. Alexander, C. Varagu (Paspalum scorbiculatum) poisoning in wild elephants. Indian Vet. Jour. 11: 186-187. 1935.

44. Almgard, G. High content of iron in teff, (Eragrostis abyssinica link) and some other crop species from Ethiopia--a result of contamination. Lantbrukshogsk Ann. 29: 215-220. 1963.

45. Ayyar, K. V. S., and Narayanaswamy, K. Varagu poisoning. Nature 163: 912-913. 1949.

46. Baum, F. (Estimation of biological value of protein with tetrahmena pyriformis W. II. Protein value of different foods and feeds.) Nahrung 10: 453-459. 1966.

47. Beames, R. M. A comparison of the digestibility of wheat and sorghum by pigs. Queensland Jour. Agr. Sci. 20: 231-238. 1963.

48. Belavady, B., and Gopalan, C. Production of black tongue in dogs by feeding diets containing jowar (Sorghum vulgare). Lancet 2: 1220-1221. 1965.

49. Belavady, B., and Gopalan, C. Availability of nicotinic acid in jowar (Sorghum vulgare). Indian Jour. Biochem. 3: 44-47. 1966.

50. Bhide, N. K., and Aimen, R. A. Pharmacology of a tranquilizing principle in Paspalum scorbiculatum grain. Nature 183: 1735-1736. 1959.

51. Black, W. H., Ellis, N. R., Jones, J. M., and Keating, F. E. Relation between urinary calculi and use of grain sorghum in steer-fattening rations in the Southern Great Plains. USDA Tech. Bul. 945, 14 pp. 1947.

52. Boas-Fixsen, M. A. The biological value of protein in nutrition. Nutr. Abst. Rev. 4: 447-459. 1935.

53. Bressani, R., Aguirre, A., Elias, L. G., Arroyave, R., Jarquin, R., and Scrimshaw, N. S. All-vegetable protein mixture for human feeding. IV. Biological testing of INCAP vegetable mixture Nine in chicks. Jour. Nutr. 74: 209-216. 1961.

54. Bressani, R., Aguirre, A., and Scrimshaw, N. S. All-vegetable protein mixtures for human feeding. II. Nutritive value of corn, sorghum, rice and buckwheat substituted for lime-treated corn in INCAP vegetable mixture. Jour. Nutr. 69: 351-355. 1959.

55. Bressani, R., Elias, L. G., Aguirre, A., and Scrimshaw, N. S. All-vegetable protein mixture for human feeding. III. The development of INCAP vegetable mixture Nine. Jour. Nutr. 74: 201-208. 1961.

56. Bressani, R., Elias, L. G., and Scrimshaw, N. S. All-vegetable protein mixtures for human feeding. VIII. Biological testing of INCAP vegetable mixture in rats. Jour. Food Sci. 27: 203-209. 1962.

57. Busson, F. Plantes alimentaires de l'Ouest Africain (Etude botanique, biologique et chimique). Leconte, Marseille. 1965.

58. Carbiener, R., Jaeger, P., and Busson, F. Etude de la fraction protedique de la graine de Fonio (Digitaria exilis (Kippist) stapf). Une protein exceptionnellement riche en methionine. Ann. Nat. et Aliment. 14: 165-169. 1960.

59. Carr, W. R. Observations on the nutritive value of traditionally ground cereals in Southern Rhodesia. Brit. Jour. Nutr. 15: 339-343. 1961.

60. Chitre, R. G., and Ganapathy, S. Nutritive value of proteins of foxtail millet (Setaria italica). Jour. Sci. Ind. Res. 15C: 95-99. 1956.

61. Chitre, R. G., and Vallury, S. N. Studies on the protein value of cereals and pulses. I. Effect of feeding on growth, blood hemoglobin and plasma protein in rats. Indian Jour. Med. Res. 44: 555-563. 1956.

62. Chitre, R. G., and Vallury, S. M. Studies on the protein value of cereals and pulses. II. Effect of feeding on total protein, fat, and glycogen content of livers in young rats. Indian Jour. Med. Res. 44: 565-571. 1965.

63. Corkill, N. L., Creditor, H., and Stewart, G. E. S. Millet beer and peanuts as protective foods in Africa. Jour. Trop. Med. Hyg. 51: 140-144. 1948.

64. Daniel, V. A., Leela, R., Subrahmanya Raj Urs, T. S., Venkat Rao, S., Haran, K. H., Rajalakshmi, D., Swaminathan, M., and Parpia, H. A. B. Amino acid supplementation of proteins: II. The effect of supplementing kaffir corn and pearl millet and diets based on them with l-lysine and dl-threonine on the nutritive value of their proteins. Jour. Nutr. and Dietet. (India) 2: 134-137. 1965.

65. Deaton, J W., and Quisenberry, J. H. Effect of amino acid supplementation of low protein corn and grain sorghum diets on the performance of egg production stocks. Poultry Sci. 44: 943-947. 1965.

66. Devadas, R. P., Jalaja, R., and Radharukmani, A. Comparison of nutritive value, cooking qualities, and acceptability of four selected strains of hybrid cholam (Sorghum vulgare) with a local strain. Jour. Nutr. and Dietet. (India) 3: 47-49. 1966.

67. French, M. H. Local millets as substitutes for maize in the feeding of domestic animals. East African Agr. Jour. 13: 217-220. 1948.

68. Ganapathi, S., and Chitre, R. G. A study on enzymic liberation (in vitro) of essential amino acids from protein of Italian millet and field bean (Dolichos lablab). Jour. Postgrad. Med. (Bombay) 7: 158-163. 1961. Also: Nutr. Abst. Rev. 32: 857. 1962.

69. Ganapathi, S., and Chitre, R. G. The effect of Italian millet (Setaria italica) and field bean (Dolichos lablab) proteins on the formation of hemoglobin and plasma protein in albino rats. Jour. Postgrad. Med. (Bombay) 7: 164-166. 1961. Also: Nutr. Abst. Rev. 32: 857. 1962.

70. Ganapathi, S., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. Supplementary relations of the proteins of horsegram (Dolichos biflorus) and cow pea (Vigna catjang) to those of Italian millet (Setaria italica). Food Sci. (Mysore) 7: 7-8. 1958.

71. Ganapathy, N. S., Chitre, R. G., and Gokhale, S. K. The effect of the protein of Italian millet (Setaria italica) on nitrogen retention in albino rats. Indian Jour. Med. Res. 45: 395-399. 1957.

72. Giri, K. V. The availability of calcium and phosphorus in cereals. Indian Jour. Med. Res. 28: 101-111. 1940.

73. Hale, F., and Lyman, C. M. Lysine supplementation of sorghum grain-cottonseed meal rations for growing-fattening pigs. Jour. Anim. Sci. 20: 734-736. 1961.

74. Hammond, J. C. The comparison of corn, milo, and hegari in the diet of laying hens. Poultry Sci. 21: 410-415. 1942.

75. Hariharan, K., Subramanya, Raj Urs, T. S., Desai, B. L. M. Venkat Rao, S., Rajalakshmi, D., Swaminathan, M., and Parpia, H. A. B. Effect of supplementing poor Indian diets based on kaffir corn, pearl millet and maize with vitamins and minerals and fortified and unfortified groundnut flour on the nutritive value of the diets as judged by the growth of rats and on the protein efficiency ration. Jour. Nutr. and Dietet. (India) 2: 196-201. 1965.

76. Haudricourt, A. L'historie du Tef. Rev. Bot. Appl. et Agr. Trop. 21: 128. 1941.

77. Heywang, B. W., and Morgan, R. B. The comparative value of yellow corn, yellow milo, and hegari in a diet for growing chicks. Poultry Sci. 11: 307-317. 1932.

78. Hogan, A. G. The nutritive properties of kafirin. Jour. Biol. Chem. 33: 151. 1918.

79. Howe, E. E., Jansen, G. R., and Gilfillan, E. W. Amino acid supplementation of cereal grains as related to the world food supply. Amer. Jour. Clin. Nutr. 16: 315-320. 1965.

80. Jacquot, R. Les mils et sorghos. In Nutrition et alimentation tropicales, FAO, Rome, Vol. 1, pp. 588-606. 1957.

81. Jansen, G. R., Dimaio, L. M., and Hause, N. L. Amino acid composition and lysine supplementation of teff. Jour. Agr. Food Chem. 10: 62-64. 1962.

82. Joseph, K., Rao, M. N., Swaminathan, M., Sankaran, A. N., and Subrahmanyan, V. The effect of supplementing poor jowar diet with Indian Multipurpose Food on the growth and composition of body and liver of albino rats. Ann. Biochem. Expt. Med. 19: 87-94. 1959.

83. Joseph, K., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. Supplementary value of Indian Multipurpose Food to poor vegetarian diets based on Italian millet (Setaria italica) and little millet (Panicum miliare). Food Sci. (Mysore) 6: 205-206. 1957.

84. Kadol, S. B., Sreenivasamurthy, V., and Swaminathan, M. Nutritive value of the seeds of Panicum miliare (little millet). Bul. Cent. Food Tech. Res. Inst. (Mysore) 3: 247-248. 1954.

85. Kadkol, S. B., Sreenivasamurthy, V., and Swaminathan, M. Nutritive value of the seeds of Paspalum scorbiculatum. Jour. Sci. Ind. Res. (India) 13B: 744-745. 1954.

86. Kadkol, S. B., and Swaminathan, M. The nutritive value of Italian millet (Setaria italica). Sci. and Cult. 20: 340-341. 1955.

87. Kemmerer, A. R., and Heywang, B. W. A comparison of various varieties of sorghum as substitute for corn in practical chick diets. Poultry Sci. 44: 260-264. 1965.

88. Kihlberg, R., and Ericson, L. E. Amino acid composition and supplementation of teff. Nutr. et Dieta 6: 151-155. 1964.

89. Korula, S., Chandrasekhara, M. R., Indiramma, K., Swaminathan, M., and Subrahmanyan, V. Nutritive value of balanced malt foods. Indian Jour. Med. Res. 49: 880-886. 1961.

90. Krishnan, T. S., Thakral, B. M., and Tandon, H. P. Jowar (Sorghum vulgare) as a substitute for yellow maize in poultry rations. (Abstract) Proc. Indian Sci. Cong. 40: 56. 1953.

91. Kundaji, T. R., and Rao, M. V. R. Supplementary nutritive value of some subsidiary cereals. Cur. Sci. 23: 93-94. 1954.

92. Kuppuswamy, S., Joseph, K., Rao, M. N., Rao, G. R., Sankaran, A. N., Swaminathan, M., and Subrahmanyan, V. Supplementary value of Indian Multipurpose Food to poor vegetarian diets based on different cereals and millets. Food Sci. (Mysore) 6: 84-86. 1957.

93. Kuppuswamy, S., Srinivasan, M., and Subrahmanyan, V. Protein in foods. Indian Council Med. Res., New Delhi, Spec. Rpt. Ser. 33, pp. 290. 1958. (A compilation of data.)

94. Kurien, P. P., Rao, M. N., Swaminathan, M., Sankaran, A. N., and Subrahmanyan, V. The effect of partial or complete replacement of rice in poor vegetarian diet by juar (Sorghum vulgare) on the growth and composition of blood and liver of albino rats. Ann. Biochem. Expt. Med. 20: 293-298. 1960.

95. Kurien, P. P., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. Nutritive value of ragi (Eleusine coracana) and ragi diets. Food Sci. (Mysore) 9: 49-54. 1960. (A review.)

96. Kurien, P. P., Rao, M. N., Swaminathan, M., and Subrahmanyan, V. Chemical composition and nutritive value of jowar (kaffir corn) (Sorghum vulgare) and jowar diets. Food Sci. (Mysore) 9: 205-210. 1960. (A review.)

97. Kurien, P. P., Rao, M. N., Swaminathan, M., Sankaran, A. N., and Subrahmanyan, V. The effect of partial or complete replacement of rice in poor rice diet by bajra (Penni setum typhoideum) on growth and composition of blood, body, liver of albino rats. Ann. Biochem. Expt. Med. 22: 245-248. 1962.

98. Kurien, P. P., Sivaramakrishnan, R., Swaminathan, K., Indiramma, K., and Subrahmanyan, V. The effect of partial or complete replacement of rice in poor vegetarian diet by ragi (Eleusine coracana) on growth and composition of blood and liver of rats. Ann. Biochem. Expt. Med. 18: 187-194. 1958. Also: Food Sci. 7: 322-324. 1958.

99. Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. The chemical composition and nutritive value of bajra (Pennisetum typhoideum) and bajra diets. Food Sci. (Mysore) 10: 3-6. 1961. (A review.)

100. Lamb, M W., Michie, J. M., and Rivers, J. M. A comparison of the nutritive value of three sorghum grains with that of wheat. Cereal Chem. 43: 447-455. 1966.

101. Leela, R., Daniel, V. A., Venkat Rao, S., Hariharan, K., Rajalakshmi, D., Swaminathan, M., and Parpia, H. A. B. Amino acid supplementation of proteins. I. The effect of supplementing ragi (Eleusine coracana) and ragi diets with lysine, threonine and skim milk powder on the nutritive value of their proteins. Jour. Nutr. and Dietet. (India) 2: 78-82. 1965.

102. Le Riche, F. J. H., and Le Riche, H. Fortified maize and kaffir corn mixtures. So. African Med. Jour. 20: 59-62. 1946.

103. Li, Tsan-Wen. Biological value of the proteins of barley, rice kaoliang and millet. Chinese Jour. Physiol. 4: 49-58. 1930.

104. McCarrison, R. The causation of stone in India. Brit. Med. Jour. 3675: 1009-1015. 1931.

105. McClure, F. J. Millet (cattail and foxtail) as the cariogenic component of experimental rat diets. Jour. Dental Res. 39: 1172-1176. 1960.

106. McClymont, G. L., and Duncan, D. C. Studies on nutrition of poultry. III. Toxicity of grain sorghum for chickens. Australian Vet. Jour. 28: 229-233. 1952.

107. McCollum, E. V., and Simmonds, N. A biological analysis of pellagra-producing diets. III. The values of some seed proteins for maintenance. Jour. Biol. Chem. 32: 347-368. 1917.

108. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary relationships between the proteins of certain seeds. Jour. Biol. Chem. 37: 155-178. 1919.

109. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary protein values in foods. III. The supplementary dietary relations between the proteins of the cereal grains and the potato. Jour. Biol. Chem. 47: 175-206. 1921.

110. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary protein values in foods. IV. The supplementary relations of cereal grain with cereal grain; legume seed with legume seed; and cereal grain with legume seed; with respect to improvement in the quality of their proteins. Jour. Biol. Chem. 47: 207-234. 1921.

111. McCollum, E. V., Simmonds, N., and Pitz, W. The supplementary dietary relationship between leaf and seed as contrasted with combinations of seed with seed. Jour. Biol. Chem. 30: 13-32. 1917.

112. Maeda, S., Higasi, T., and Matsuoka, H. Nutritive deficiency of kaoliang protein. Jour. Agr. Chem. Soc. (Japan) 14: 1248-1256. 1938.

113. Mangay, A. S., Pearson, W. N., and Darby, W. J. Millet (Setaria italica): Its amino acid and niacin content and supplementary nutritive value for corn maize. Jour. Nutr. 62: 377-393. 1957.

114. Marchal, A. La couche brune et les qualite's alimentaires du grain de sorgho. Agron. Trop. 3-4: 139-140. 1949.

115. Markuze, Z. Biological value of the proteins of certain cereals. Biochem. Jour. 31: 1973-1977. 1937.

116. Mason, E. D., Devadas, R., and Frimodt-Moller, J. The effects on growth in rats of butter and ragi (Eleusine coracana) separately and combined as supplements to the poor rice diet of South India. Indian Jour. Med. Res. 34: 45-48. 1946.

117. Mazer, A. Enquete-sondage alimentation-nutrition faite dans le Hodh (Mauritanie). Bul. Inst. Natl. Hyg. 14: 951. 1959.

118. Moats, R. W. Sorghum - Bibliography 1930-1963. Scarecrow Press. 1967.

119. Moats, R. W. The Millets - Bibliography 1930-1963. Scarecrow Press, 154 pp. 1967.

120. Mukherjee, R., and Parthasarathy, D. The digestible nutrients of certain cereal grains as determined by experiments on Indian fowls. Indian Jour. Vet. Sci. 18: 41-45. 1948.

121. Mukherjee, R., and Parthasarathy, D. Studies of the biological values of the proteins of certain poultry feeds. Indian Jour. Vet. Sci. 18: 51-56. 1948.

122. Nayak, N. C., and Misra, D. B. Cattle poisoning by Paspalum scorbiculatum. Indian Vet. Jour. 39: 501-504. 1962.

123. Niyogi, S. P., Narayana, N., and Desai, B. G. The nutritive value of Indian foodstuffs. V. The nutritive value of ragi (Eleusine coracana). Indian Jour. Med. Res. 22: 373-382. 1934.

124. Novellie, L. Biological ennoblement and kaffir beer. Food Tech. 20: 101-102. 1966.

125. Orru, A. Esperienze di alimentazione con cariossidi di dura (Sorghum aethiopicum). (Results of feeding sorghum grain (Sorghum aethiopicum). Quad. Nutr. 3: 351-367. 1936.

126. Oyenuga, V. A. Nutritive value of cereal and cassava diets for growing and fattening pigs in Nigeria. Brit. Jour. Nutr. 15: 327-338. 1961.

127. Ozment, D. D., Dunkelgod, K. E., Tonkinson, L. V., Gleaves, E. W., Thayer, R. H., and Davies, F. F. Comparing milo and corn in broiler diets on an equivalent nutrient intake basis. Poultry Sci. 42: 472-481. 1963.

128. Pal, A. K., and Ramachandria, G. A note on the feeding of bajra to chickens. Proc. Indian Sci. Cong. 41: 230. 1954.

129. Pal, A. K., Srivastava, R. N., and Iyer, S. G. A note on availability of nutrients from jowar as a single cereal for poultry. Proc. Indian Sci. Cong. 40: 57. 1953.

130. Panemangalore, M., Guttikar, M. N., Rao, M. N., Rajalakshmi, D., and Swaminathan, M. Studies on processed protein foods based on blends of groundnut, Bengal gram, soyabean and sesame flours and fortified with minerals and vitamins. III. Supplementary value to a poor Indian kaffir corn diet. Jour. Nutr. and Dietet. (India) 2: 28-33. 1965.

131. Patwardhan, V. N. Protein element in Indian nutrition. Indian Jour. Med. Sci. 10: 1-18. 1956.

132. Payne, L. F. The comparative nutritive value of sorghum grain, corn, and wheat as poultry feeds. Kan. Agr. Expt. Sta. Bul. 268: 32 pp. 1934.

133. Phansalkar, S. V. Nutritive evaluation of vegetable proteins. In Proc. Symposium on Proteins, Cent. Food Tech. Res. Inst. (Mysore), pp. 1-10. Aug. 1960.

134. Phansalkar, S. V., Ramachandran, M., and Patwardhan, V. N. Nutritive value of vegetable proteins. I. Protein efficiency ratios of cereals and pulses and the supplementary effect of the addition of a leafy vegetable. Indian Jour. Med. Res. 45: 611-621. 1957.

135. Phansalkar, S. V., Ramachandran, M., and Patwardhan, V. N. Nutritive value of vegetable proteins. II. The effect of vegetable protein diets on the regeneration of hemoglobin and plasma proteins in protein depleted rats. Indian Jour. Med. Res. 46: 333-344. 1958.

136. Platt, B. S. Biological ennoblement: Improvement of the nutritive value of foods and dietary regimens by biological agencies. Food Tech. 18: 68-76. 1964.

137. Pond, W. G., Hillier, J. C., and Benton, D. A. The amino acid adequacy of milo (grain sorghum) for the growth of rats. Jour. Nutr. 65: 493-502. 1958.

138. Pond, W. G., Hillier, J. C., and MacVicor, R. V. Amino acid supplementation to corn and milo rations for growing pigs. Jour. Anim. Sci. 12: 928. 1953.

139. Rajalakshmi, R., and Majmundar, N. Effects of different legume supplements to kodri (Paspalum scorbiculatum) on weight gain and body composition of albino rats. Jour. Nutr. and Dietet. (India) 3: 67-71. 1966.

140. Rama Rao, G., Murthy, H. B. N., and Swaminathan, M. Nutritive value of pearl millet (Pennisetum typhoideum). Indian Jour. Physiol. Allied Sci. 7: 236-239. 1953.

141. Rama Rao, G., Murthy, H. B. N., and Swaminathan, M. Supplementary relations of Bengal gram and groundnut proteins to bajra (Pennisetum typhoideum) proteins. Cent. Food Tech. Res. Inst. Bul. (Mysore) 3: 44. 1953.

142. Ramachandran, M., Phansalkar, S. V., and Patwardhan, V. N. Nutritive value of vegetable protein. III. Biosynthesis of vitamin B_{12} and its utilization in rats on vegetable protein diets. Indian Jour. Med. Res. 48: 243-249. 1960.

143. Ramiah, P. V., and Satyanarayana, P. The quality of crops. I. Nutritive values of different varieties of ragi grains (Eleusine coracana). Proc. Assoc. Econ. Biol. 4: 13-21. 1936.

144. Ramiah, P. V., and Satyanarayana, P. Biological values of ragi proteins. Proc. Soc. Biol. Chem. 1: 7-8. 1936.

145. Ranganathan, S. Influence of cereals on calcium, magnesium and phosphorus assimilation. Indian Jour. Med. Res. 23: 229-236. 1935.

146. Ranjhan, S. K., Jensen, A. H., Cox, J. L., Harmon, B. G., and Becker, D. E. Amino acid supplements to milo-peanut meal rations for growing pigs. Jour. Anim. Sci. 23: 461-464. 1964.

147. Rao, G. R., Murthy, H. B. N., and Swaminathan, M. Supplementary relations of Bengal gram and groundnut proteins to bajra (Pennisetum typhoideum) proteins. Cent. Food Tech. Res. Inst. Bul. (Mysore) 3: 44. 1954.

148. Rao, M. N., Sur, G., Swaminathan, M., and Subrahmanyan, V. Effect of milling on the nutritive value of jowar (Sorghum vulgare). Food Sci. (Mysore) 7: 254-255. 1958. Also: Ann. Biochem. Expt. Med. 18: 27-32. 1958.

149. Rao, M. N., Kurien, P. P., Swaminathan, M., and Subrahmanyan, V. Nutritive value of certain cereals and cereal diets consumed in India. Food Sci. (Mysore) 10: 163-175. 1961. (A review.)

150. Rao, M. V. L., Srinivasan, M., and Subrahmanyan, V. Some unfamiliar foods--their processing and nutritional value. Food Sci. (Mysore) 8: 279-284. 1959.

151. Rao, P. B. R., Balakrishnan, S., and Rajagopalan, R. Supplementary value of a malted ragi food. Sci. and Cult. 19: 561-562. 1954.

152. Rao, S. V., Jayaraj, A. P., Bhagavan, R. K., Sankaran, A. N., Swaminathan, M., and Sriramachari, S. The effect of feeding diets containing insect-infested jowar on the growth and composition of blood and liver of albino rats. Ann. Biochem. Expt. Med. 20: 135-142. 1960.

153. Rao, S. V., Pantulu, A. J., Swaminathan, M., and Subrahmanyan, V. Supplementary value of low-fat groundnut flour to poor vegetarian diets based on jowar (Sorghum vulgare) and ragi (Eleusine coracana). Ann. Biochem. Expt. Med. 18: 33-38. 1958.

154. Saxena, K. L., Chakrabarti, C. H., and Nath, M. C. Effect of rice polishing concentrate on the nitrogen, calcium and phosphorus metabolism of albino rats kept on rice and jowar diets. Jour. Nutr. and Dietet. (India) 3: 121-125. 1966.

155. Saxena, K. L., and Nath, M. C. Effect of palm jaggeries on the utilization of calcium, phosphorus, and nitrogen of poor Indian diets. Indian Jour. Physiol. Allied Sci. 16: 118-121. 1962.

156. Saxena, K. L., and Nath, M. C. Effect of palm jaggeries on the growth and blood and liver composition of albino rats kept on rice and jowar diets. Ann. Biochem. Expt. Med. 23: 61-64. 1963.

157. Scrimshaw, N. S., and Bressani, R. Vegetable protein mixtures for human consumption. Fed. Proc. 20, Suppl. 7: 80-88. 1961.

158. Shurpalekar, S. R., Joseph, A. A., Moorjani, M. N., Lahiry, N. L., Indiramma, K., Swaminathan, M., Sreenivasan, A., and Subrahmanyan, V. Supplementary value of fish flour fortified with vitamins to poor Indian diets based on different cereals and millets. Food Sci. (Mysore) 11: 49-51. 1962.

159. Sidransky, H. Chemical pathology of nutritional deficiency induced by certain plant proteins. Jour. Nutr. 71: 387-395. 1960.

160. Sirinit, K., Soliman, A. G. M., Van Loo, A. T., and King, K. W. Nutritional value of Haitian cereal-legume blends. Jour. Nutr. 86: 415-423. 1965.

161. Slump, P., and de Groot, A. P. (The nutritive value of oat and rolled oat protein, compared to that of other cereals.) Voeding 26: 8-16. 1965.

162. Smith, M. C. The comparative nutritive value of yellow corn and the grain sorghums hegari and yellow milo. Jour. Agr. Res. 40: 1129-1145. 1930.

163. Smith, M. C., and Roehm, G. The biological value of the proteins in hegari and the supplemental value of certain protein concentrates used in farm animal feeding. Jour. Agr. Res. 54: 135-146. 1937.

164. Stafijcuk, A. A., Teljatnikov, N. Ja., Stefanovskaja, V. G., and Trojanova, T. D. (Nutritive value of sorghum grain.) Vestn. sel'skohoz. Nauki. 10: 57-62. 1965. Also: Nutr. Abst. Rev. 36: 369. 1966.

165. Subrahmanyan, V., Krishnamurthy, K., Swaminathan, M., Bhatia, D. S., and Raghunatha Rao, Y. K. Supplementary value of cottonseed flour to wheat and ragi diets. Cent. Food Tech. Res. Inst. Bul. (Mysore) 3: 225-226. 1954.

166. Subrahmanyan, V., Kuppuswamy, S., Rama Rao, G., Swaminathan, M., and Bhatia, D. S. Investigations on grain substitutes. III. The nutritive value of round grains from blends of tapioca and groundnut flours. Cent. Food Tech. Res. Inst. Bul. (Mysore) 3: 187-189. 1954.

167. Subrahmanyan, V., Murthy, H. B. N., and Swaminathan, M. Effects of partial replacement of rice, wheat or ragi (Eleusine coracana) by tuber flours on the nutritive value of poor vegetarian diets. Brit. Jour. Nutr. 8: 1-10. 1954.

168. Sugahara, T., and Sugahara, N. (On the possibility of measuring the nutritive value of food protein through a rat's liver enzyme activity. I. About the reciprocity between activity of rat's liver enzyme and growth of weanling rat.) Jour. Jap. Nutr. 21: 155-160. 1963.

169. Sugahara, T., and Sugahara, N. (On the possibility of measuring the nutritive value of food protein through a rat's liver enzyme activity. II. On the measurement of nutritive value of various kinds of food protein by using a rat's liver enzyme activity as a criterion.) Jour. Jap. Nutr. 21: 161-166. 1963.

170. Sugahara, T., Machida, A., and Sugahara, N. (On the possibility of measuring the nutritive value of food protein through a rat's liver enzyme activity. III. About the reciprocity between activity of rat's liver enzyme and the amino acid composition of food proteins.) Jour. Jap. Nutr. 22: 121-124. 1964.

171. Sur, G., Reddy, S. K., Swaminathan, M., and Subrahmanyan, V. Supplementary value of food yeast (Torula utilis) to poor vegetable diets based on cereals. Cent. Food Tech. Res. Inst. Bul. 3: 111. 1954.

172. Sur, G., Reddy, S., Swaminathan, M., and Subrahmanyan, V. Supplementary value of the proteins of food yeast to cereal proteins. Cent. Food Tech. Res. Inst. Bul. (Mysore) 4: 35-36. 1954.

173. Sur, G., Swaminathan, M., and Subrahmanyan, V. Studies on the nutritive value of jowar (kaffir corn-Sorghum vulgare). Cent. Food Tech. Res. Inst. Bul. (Mysore) 4: 133-134. 1954-55.

174. Sure, B. The addition of small amounts of defatted fish flour to whole yellow corn, whole wheat, whole and milled rye, grain sorghum and millet. I. Influence on growth and protein efficiency. Jour. Nutr. 63: 409-416. 1957.

175. Swaminathan, M. The relative value of the proteins of certain foodstuffs in nutrition. Indian Jour. Med. Res. 24: 767-786. 1937.

176. Swaminathan, M. The relative values of the proteins of certain foodstuffs in nutrition. II. The comparative biological values of the proteins of certain cereals, pulses and skim milk powder measured by the growth of young rats. Indian Jour. Med. Res. 25: 57-79. 1937.

177. Swaminathan, M. The relative values of the proteins of certain foodstuffs in nutrition. IV. Supplementary values: Studied by (A) the balance sheet method and (B) the growth method with young rats. Indian Jour. Med. Res. 25: 399-426. 1937.

178. Swaminathan, M. The relative value of the protein of certain foodstuffs in nutrition. V. Supplementary value of the proteins of Eleusine coracana (ragi) and of certain pulses and skimmed milk powder studied by the nitrogen balance and growth method. Indian Jour. Med. Res. 26: 107-112. 1938.

179. Swaminathan, M. The relative value of the proteins of certain foodstuffs in nutrition. VI. General conclusions. Indian Jour. Med. Res. 26: 113-118. 1938.

180. Tasker, P. K., Rao, M. N., and Swaminathan, M. Supplementary value of a processed protein food based on a blend of coconut meal, groundnut flour and Bengal gram flour to poor Indian diets based on different cereals and millets. Jour. Nutr. and Dietet. (India) 1: 95-97. 1964.

181. Vavich, M. G., Kemmerer, A. R., Nibkar, B., and Stith, L. C. Nutritive value of low and high protein sorghum grains for growing chickens. Poultry Sci. 38: 36-40. 1959.

182. Wada, S., and Ariyama, H. (Dietary factors and cholesterol metabolism. I. Effect of the level and type of cereal protein on cholesterol metabolism.) Jour. Jap. Soc. Food Nutr. 19: 27-31. 1966.

183. Waggle, D., Parrish, D. B., and Deyoe, C. W. Nutritive value of protein in high and low protein content sorghum grain as measured by rat performance and amino acid assays. Jour. Nutr. 88: 370-374. 1966.

Human Studies

1. Bressani, R., Wilson, D. L., Chung, M., Behar, M., and Scrimshaw, N. S. Supplementation of cereal protein with amino acids. VI. Effect of amino acid supplementation of rolled oats as measured by nitrogen retention in young children. Jour. Nutr. 81: 399-404. 1963.

2. Bronner, F., and Harris, R. S. Studies in calcium metabolism. Effect of food phytates on Ca^{45} uptake in children on low-calcium breakfasts. Jour. Nutr. 54: 523-542. 1954.

3. Burrill, L. M., and Schuck, C. Adequacy of the intact protein of oats compared with the amino acid equivalent. Fed. Proc. 24: 629. 1965.

4. Burrill, L. M., and Schuck, C. Nutritive value of protein of rolled oats. Comparison with amino acid equivalent. Jour. Amer. Dietet. Assoc. 48: 29-32. 1966.

5. Burton, H. B. The influence of cereals upon the retention of calcium and phosphorus in children and adults. Jour. Biol. Chem. 85: 405-419. 1930.

6. Clark, L. C., Ryer, H. E., and Murlin, J. R. Relative-to-egg biological values and replacement value of some cereal proteins in human subjects. Jour. Nutr. 38: 405-420. 1949.

7. Clough, H. D., Carman, J. S., and Austin, E. M. The nutritive value of cereal breakfast foods. IV. The response of the human stomach. Jour. Nutr. 3: 1-16. 1930.

8. Cremer, H. D., Lang, K., Hubbe, I., and Kulik, U. Attempts at improving the biological value of wheat protein with lysine of yeast and a comparison with oat protein. Biochem. Z. 322: 58-67. 1951.

9. Dean, R. F. A. Plant proteins in child feeding. Med. Res. Council Spec. Rpt. Ser. 279, 163 pp. HMSO London. 1953.

10. Hunt, J. N., and Spurrell, W. R. The effects of sucrose upon gruel fractional test meals. Jour. Physiol. 107: 245-250. 1948.

11. Kuether, C. A., and Myers, V. C. The nutritive value of cereal proteins in human subjects. Jour. Nutr. 35: 651-667. 1948.

12. Leverton, R. M., and Steel, D. Nitrogen balances of young women fed the FAO reference pattern of amino acids and the oat pattern. Jour. Nutr. 78: 10-14. 1962.

13. Lintzel, W. Von. (The quantity and quality of dietary protein for human subjects.) Deutsche Med. Wochenschrift. 80: 1047-1051. 1955.

14. Murlin, J. R., and Mattill, H. A. Digestibility and nutritional value of cereal proteins in the human subject. Jour. Nutr. 16: 15-35. 1938.

15. Murlin, J. R., Nassett, E. S., and Marsh, M. E. The egg replacement value of the protein of cereal breakfast foods with a consideration of heat injury. Jour. Nutr. 16: 249-269. 1938.

16. Oldham, H., and Dickinson, F. N. Evaluation of nitrogen balance of young women fed amino acids proportioned in the FAO provisional pattern as in egg, oats, milk and peanuts. Amer. Jour. Clin. Nutr. 17: 360-366. 1965.

17. Porter-Levin, T. Calcium and phosphorus metabolism of normal preschool children. I. On diets containing plain and irradiated cereals. Jour. Amer. Dietet. Assoc. 8: 482-488. 1933.

18. Porter-Levin, T. Metabolism of normal preschool children. III. Variations in nitrogen storage on constant diets. Jour. Amer. Dietet. Assoc. 15: 427-434. 1939.

19. Rose, M. S. Some experiments on the digestibility of rolled oats prepared in various ways. Jour. Home Econ. 14: 9-12. 1922.

20. Rose, M. S., Vahlteich, E. McC., and MacLeod, G. Factors influencing hemoglobin regeneration. III. Eggs in comparison with whole wheat, prepared bran, oatmeal, beef liver, beef muscle. Jour. Biol. Chem. 104: 217-229. 1934.

21. Sherman, H. C., Winters, J. C., and Phillips, V. Efficiency of oat protein in adult human nutrition. Jour. Biol. Chem. 39: 53-62. 1919.

Experimental Animal Studies

22. Boas-Fixsen, M. A. The biological value of protein in nutrition. Nutr. Abst. Rev. 4: 447-459. 1935.

23. Bressani, R., Aguirre, A., Elias, L. G., Arroyave, R., Jarquin, R., and Scrimshaw, N. S. All-vegetable protein mixtures for human feeding. IV. Biological testing of INCAP vegetable mixture Nine in chicks. Jour. Nutr. 74: 209-216. 1961.

24. Bressani, R., Braham, J. E., Elias, L. G., and de Zaghi, S. Relationship between net protein utilization (NPU) and nitrogen efficiency ratio (NER). Nutr. Dieta. 7: 161-174. 1965.

25. Brockington, S. F. Breakfast cereal technology. Food Tech. 4: 396-400. 1950.

26. Buttner, W., and Muhler, J. C. The effect of oat hulls on the dental caries experienced in rats. Jour. Dent. Res. 38: 823-824. 1959.

27. Campbell, J. A. Evaluation of proteins in foods for regulatory purposes. Jour. Agr. Food Chem. 8: 323-327. 1960.

28. Carman, J. S., Smith, H. G., Havers, G. C., and Murlin, J. R. The nutritive value of cereal breakfast foods. II. Digestibility in vitro with a study of methods. Jour. Nutr. 2: 91-110. 1929.

29. Cowgill, G. R., Jones, M. H., Frisch, P. A., and Jackson,G. P. Studies on the effects of abundant cereal intake. I. The use of cereals as the chief source of calories. Jour. Amer. Med. Assoc. 89: 1770-1774. 1927.

30. De Groot, A. P., Luyken, R., and Pikaar, N. A. Cholesterol lowering effect of rolled oats. Lancet 2: 303-304. 1963.

31. Dodds, M. L. Cariogenic property of cereal food. Jour. Nutr. 71: 317-321. 1960.

32. Evans, R. J., and Banderner, S. L. Nutritive value of oat proteins. Fed. Proc. 24: 629. 1965.

33. Hart, E. B., Miller, W. S., and McCollum, E. V. Further studies on the nutritive deficiencies of wheat and grain mixtures and the pathological conditions produced in swine by their use. Jour. Biol. Chem. 25: 239-260. 1916.

34. Hartwell, G. A. The dietetic value of oatmeal protein. Biochem. Jour. 20: 751-758. 1926.

35. Hoagland, R., and Snider, G. G. The value of beef protein as a supplement to the proteins in certain vegetable products. Jour. Agr. Res. 34: 297-308. 1927.

36. Jansen, G. R. Influence of rat strain and protein level on protein efficiency ratio (PER) determination. Jour. Nutr. 78: 231-240. 1962.

37. Jones, D. B., Sex differences in the growth of young rats and survival of adult rats fed protein deficient diets. Jour. Nutr. 44: 456-476. 1951.

38. Jones, D. B., Caldwell, A., and Widness, K. D. Comparative growth-promoting values of the proteins of cereal grains. Jour. Nutr. 35: 639-650. 1948.

39. Laporte, P., and Tremolieres, J. Inhibitor action of rice, oats, corn, barley, wheat and rye and buckwheat flours on certain proteolytic enzymes of pancreas. Comp. Rend. Soc. Biol. 156: 1261-1263. 1962.

40. McCance, R. A., and Glaser, E. M. Energy value of oatmeal and the digestibility and absorption of its protein, fats and calcium. Brit. Jour. Nutr. 2: 221-228. 1948.

41. McCollum, E. V. The value of the proteins of cereal grains of milk for growth in the pig, and the influence of the plane of protein intake on growth. Jour. Biol. Chem. 19: 323-333. 1914.

42. McCollum, E. V., and Davis, M. The influence of certain vegetable fats on growth. Jour. Biol. Chem. 21: 179-182. 1915.

43. McCollum, E. V., and Simmonds, N. A biological analysis of pellagra-producing diets. III. The values of some seed proteins for maintenance. Jour. Biol. Chem. 32: 347-368. 1917.

44. McCollum, E. V., and Simmonds, N. A biological analysis of pellagra-producing diets. IV. The cause of failure of mixtures of seeds to promote growth in young animals. Jour. Biol. Chem. 33: 303-311. 1918.

45. McCollum, E. V., and Simmonds, N. The nursing mother as a factor of safety in the nutrition of the young. Amer. Jour. Physiol. 46: 275-313. 1918.

46. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary relationships between the proteins of certain seeds. Jour. Biol. Chem. 37: 155-178. 1919.

47. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary protein values in foods. III. The supplementary dietary relations between the proteins of the cereal grains and the potato. Jour. Biol. Chem. 47: 175-206. 1921.

48. McCollum, E. V., Simmonds, N., and Pitz, W. Is lysine the limiting amino acid in the protein of wheat, maize or oats? Jour. Biol. Chem. 28: 483-500. 1916-17.

49. McCollum, E. V., Simmonds, N., and Pitz, W. The supplementary dietary relationship between leaf and seed as contrasted with combinations of seed with seed. Jour. Biol. Chem. 30: 13-32. 1917.

50. McCollum, E. V., Simmonds, N., and Pitz, W. The nature of the dietary deficiencies of the oat kernel. Jour. Biol. Chem. 29: 341-354. 1917.

51. Marais, J. S. C., and Smuts, D. B. The biological value of the proteins of oats, barley, wheat bran and pollard. Onderstepoort Jour. Vet. Sci. Anim. Ind. 15: 205-210. 1940.

52. Markuze, Z. Biological value of the proteins of certain cereals. Biochem. Jour. 31: 1973-1977. 1937.

53. Mattill, H. A., and Clayton, M. M. The nutritive value of cereal breakfast foods. V. The biological value of semi-cereal proteins as determined on rats. Jour. Nutr. 3: 17-22. 1930-31.

54. Meade, R. J., Dukelow, W. R., and Grant, R. S. Influence of percent oats in the diet, lysine and methionine supplementation and of pelleting on rate and efficiency of gain of growing pigs and on carcass characteristics. Jour. Anim. Sci. 25: 58-63. 1966.

55. Mitchell, H. H. The biological value of proteins at different levels of intake. Jour. Biol. Chem. 58: 905-922. 1924.

56. Mitchell, H. H. The supplementary relations among proteins. Jour. Biol. Chem. 58: 923-929. 1924.

57. Mitchell, H. H., and Block, R. J. Some relationships between the amino acid contents of proteins and their nutritive values for the rat. Jour. Biol. Chem. 163: 599-620. 1946.

58. Mitchell, H. H., and Smuts, D. B. The amino acid deficiencies of beef, wheat, corn, oats, and soybeans for growth of the white rat. Jour. Biol. Chem. 95: 263-282. 1932.

59. Murlin, J. R., Mattill, H. A., and Austin, E. M. The biological value of cereal proteins in human nutrition. Proc. Soc. Expt. Biol. Med. 23: 282-283. 1926.

60. Osborne, T. B., and Mendel, L. B. Nutritive factors in plant tissues. I. The protein factor in the seeds of cereals. Jour. Biol. Chem. 34: 521-535. 1918.

61. Osborne, T. B., and Mendel, L. B. Nutritive value of proteins of barley, oats, rye and wheat kernels. Jour. Biol. Chem. 41: 275-295. 1920.

62. Rama Rao, P. B., Norton, H. W., and Johnson, B. C. The amino acid composition and nutritive value of proteins. V. The amino acid requirements as a pattern for protein evaluation. Jour. Nutr. 88: 88-92. 1964.

63. Reese, N. A., Muggenburg, B. A., Kawalczyk, T., Hoekstra, W. G., and Gummer, R. H. Effects of corn, wheat, oats and alfalfa leaf meal on development of gastric ulcers in swine. Jour. Anim. Sci. 25: 21-24. 1966.

64. Slump, P., and de Groot, A. P. (Nutritional value of the proteins of oats compared with that of other cereal rpoducts.) Voeding 26: 8-16. 1965.

65. Smuts, D. B., and Malar, A. I. (Plant proteins. II. The biological value of lucerne meal, sesame meal, peanut meal, copra meal, cottonseed meal, and oatmeal.) Onderstepoort Jour. Vet. Sci. Anim. Ind. 10: 207. 1938.

66. Stare, F. J., and Hegsted, D. M. The nutritive value of wheat germ, corn germ and oat proteins. Fed. Proc. 3: 120-123. 1944.

67. Stewart, R. A., Hensley, W., and Peters, F. N. The nutritive value of protein. I. The effect of processing on oat protein. Jour. Nutr. 26: 519-526. 1943.

68. Sure, B. Further studies on nutritional improvement of cereal flours with yeast. Jour. Amer. Dietet. Assoc. 23: 113-119. 1947.

69. Sure, B. Nutritive values of proteins in various cereal breakfast foods. Food Res. 16: 161-165. 1951.

70. Sure, B. Protein quality and supplementation. Relative nutritive values of proteins in foods and supplementary value of amino acids in pearled barley and peanut flour. Jour. Agr. Food Chem. 3: 789-792. 1955.

71. Sure, B. Nutritional values of proteins in various cereal breakfast foods. Food Res. 16: 161-165. 1961.

72. Tang, J. J. N., Laudick, L. L., and Benton, D. A. Studies of amino acid supplementation and amino acid availability with oats. Jour. Nutr. 66: 533-543. 1958.

Human Studies

1. Dean, R. F. A. Plant proteins in child feeding. Med. Res. Council Spec. Rpt. Ser. 279, 163 pp. HMSO, London. 1953.

2. Dicke, W. K. (Coeliac disease. Investigation of the harmful effects of certain types of cereal on patients with coeliac disease.) Nutr. Abst. Rev. 21: 140. 1951.

3. French, R. B., and Mattill, H. A. The biological value of the proteins of whole wheat and rye breads. Cereal Chem. 12: 365-371. 1935.

4. Hindhede, M. Untersuchungen uber die Verdaulichkeit einiger Brotsorten. Skand. Arch. Physiol. 28: 165-188. 1913.

5. Hindhede, M. Das danische Rationierungsexperiment. Skand. Arch. Physiol. 47: 102-120. 1925.

6. Kofranyi, E. (Estimation of the biological value of food proteins. III. Comparison of the biological value of milk protein with rye protein.) Hoppe-Seyler's Ztschr. Physiol. Chem. 309: 253-265. 1957.

7. Kofranyi, E., and Jekat, F. (Estimation of the biological value of food proteins. VII. Balance trials with human subjects.) Hoppe-Seyler's Ztschr. Physiol. Chem. 335: 166-173. 1964.

8. Kofranyi, E., and Jekat, F. (Estimation of the biological value of food proteins. VIII. Value of mixed proteins. Hoppe-Seyler's Ztschr. Physiol. Chem. 335: 174-179. 1964.

9. Kofranyi, E., and Muller-Wecker, H. (Estimation of the biological value of food proteins. IV. Comparison of the values of the proteins of milk, rye and wheat with whole egg and calculation from their amino acid composition.) Hoppe-Seyler's Ztschr. Physiol. Chem. 320: 233-240. 1960.

10. Lintzel,W. Von. (Plant and animal proteins in human nutrition.) Chem. Zentr. II: 2604. 1942. Also: Chem. Abst. 38: 2370. 1944.

11. Lintzel,W. Von. (The quantity and quality of food protein for human subjects.) Deutsch. Med. Wochenschrift. 80: 1048-1051. 1955.

12. Morgan, A. F., and Heinz, A. M. Biological values of wheat and almond nitrogen (and rye). Jour. Biol. Chem. 37: 215-222. 1919.

13. Newmann, R. O. (Nutrition conditions in Bonn during wartime of 1916-17 analyzed experimentally. Nitrogen balance studies on human subjects fed exclusively on (rye) bread-sugar diets.) Viert-Schrift. f. Gericht. Med. u. Offent. Sanit. 57: 1-70. 1919.

14. Rubner, M. Uber die Zusammensetzung und Verdaulichkeit der Keime einiger Zerealien. Arch. f. Anat. u. Physiol-Physiol. Abtlg. Jahr. 1916: 123-131. 1917.

15. Rubner, M. Die Verwertung von Keimlingen der Zerealien fur die menschliche Ernahrung. Arch. f. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1916: 351-359. 1917.

16. Rubner, M. Hindhede's Unterscuhungen uber Eiweissminimum bei Brotkost. Arch. f. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1919: 124-142. 1920.

17. Rubner, M., and Thomas, K. Die Verdaulichkeit des Roggens bei verschiedener Vermahlung. Arch. f. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1916: 165-211. 1917.

Experimental Animal Studies

18. Bartnik, J. (Nutritive value of proteins of rye flour of different extraction rates.) Nahrung. 8: 511-518. 1964.

19. Bartnik, J. (Comparison of the nutritive value of rye and wheat. I. Nutritive content of rye and wheat grain with reference to their digestibility and biological value.) Rocz. Panstwowego Zakl. Hig. 16: 233-241. 1965. Nutr. Abst. Rev. 36: 50. 1966.

20. Bartnik, J. (Nutritive value of rye as compared to wheat. II. Effect of industrial food processing on the nutritive value of rye and wheat products in the light of general aspects of nutrition.) Rocz. Panstwowego Zakl. Hig. 16: 421-427. 1965. Nutr. Abst. Rev. 36: 422. 1966.

21. Bartnik, J. (Nutritive value of rye and its products. III. Experimental estimation of standards for biological studies of milled products of rye.) Rocz. Panstwowego Zakl. Hig. 15: 91-101. 1964. Nutr. Abst. Rev. 35: 87. 1965.

22. Bartnik, J. (Nutritive value of rye and its products. IV. Effects of extraction rate on digestibility of milled rye products.) Rocz. Panstwowego Zakl. Hig. 15: 183-199. 1964

23. Block, R. J., and Mitchell, H. H. The correlation of the amino acid composition of protein with their nutritive value. Nutr. Abst. Rev. 16: 249-278. 1946.

24. Boas-Fixsen, M. A. The biological value of protein in nutrition. Nutr. Abst. Rev. 4: 447-459. 1935.

25. Dammers, J. (Study of occurrence in rye of substances harmful to pigs.) Nutr. Abst. Rev. 28: 1334. 1958.

26. Dorodnitsyna, A., and Rozhanskii, N. (The nutritive value of proteins as a function of age.) Voprosy Pitaniya 6: 64-76. 1937. Chem. Abst. 32: 6699. 1938.

27. Gebhardt, G. (Effect of antibiotics in association with heat treatment of rye and soya beans in feeding experiments with albino rats.) Arch. Tierernahrung 8: 211-234. 1958.

28. Janicki, J., and Kowalczyk, J. (Biological value of rye proteins as compared with wheat protein.) Vitalstoffe Zivilsationskrankh. 10: 14-21. 1965.

29. Janicki, J., and Kowalczyk, J. (Nutritional value of rye and wheat with special reference to proteins and vitamins.) Qual. Plant. Material Veg. 13: 119-136. 1966.

30. Jespersen, J. (Experiments on the biological value of wheat and rye.) Nutr. Abst. Rev. 16: 725. 1947.

31. Johnson, D. W., and Palmer, L. S. The nutritive properties of protein, vitamins B and G and the germ of rye. Jour Agr. Res. 49: 169-181. 1934.

32. Jones, D. B. Sex differences in the growth of young rats and survival of adult rats fed protein-deficient diets (cereals). Jour. Nutr. 44: 465-476. 1951.

33. Jones, D. B., Caldwell, A., and Widness, K. D. Growth promoting value of the proteins of cereal grains. Jour. Nutr. 35: 639-650. 1948.

34. Kihlberg, R., and Ericson, L. E. Amino acid composition of rye flour and the influence of amino acid supplementation of rye flour and bread. Jour. Nutr. 82: 385-394. 1964.

35. Kon, S. K., and Markuze, Z. The biological values of the proteins of breads baked from rye and wheat flours, alone or combined with yeast or soya bean flour. Biochem. Jour. 25: 1476-1484. 1931.

36. Kuppuswamy, S., Srinivasan, M., and Subrahmanyan, V. Protein in Foods. Indian Council Med. Res. Spec. Rpt. Ser. 33, 289 pp. 1958.

37. Laporte, P., and Tremolieres, J. Inhibitor action of rice, oats, corn, barley, wheat, rye and buckwheat flours on certain proteolytic enzymes of pancreas. Comp. Rend. Soc. Biol. 156: 1261-1263. 1962.

38. McCance, R. A., Widdowson, E. M., Moran, T., Pringle, W. J. S., and Macrae, T. F. The chemical composition of wheat and rye and of flours derived therefrom. Biochem. Jour. 39: 213-222. 1945.

39. McClure, F. J. Lysine and cariogenicity of two experimental rat diets. Science 122: 557-558. 1955.

40. McCollum, E. V., and Davis, M. The essential factors of diet during growth. Jour. Biol. Chem. 23: 231-246. 1915.

41. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary relationships between the proteins of certain seeds. Jour. Biol. Chem. 37: 155-178. 1919.

42. Markuze, Z. Supplementary relationships between the proteins of wheat and rye breads and those of the pea (Pisum sativum). Biochem. Jour. 28: 463-466. 1934.

43. Mitchell, H. H., and Block, R. J. Some relationships between the amino acid contents of proteins and their nutritive values for the rat. Jour. Biol. Chem. 163: 599-620. 1946.

44. Murray, H. C. The biological value of the protein of field pea products with a comparison of several methods used for this determination. Jour. Nutr. 35: 257-267. 1948. (with rye.)

45. Nakajima, T., Amoni, S., and Otsaka, J. (On the influence of the feed upon bones. IX. Skeletal calcium turnover in rats reared with cereals.) Bul. Nutr. Inst. Agr. Sci. (Japan) 9: 81-87. 1954. Nutr. Abst. Rev. 25: 740. 1955.

46. Osborne, T. B., and Mendel, L. B. Nutritive value of proteins of barley, oats, rye, and wheat kernels. Jour. Biol. Chem. 41: 275-295. 1920.

47. Stewart, R. A., Hensley, G. W., and Peters, F. M. The nutritive value of protein. I. The effect of processing on oat protein (with rye). Jour. Nutr. 26: 519-526. 1943.

48. Stromnaes, A. S., and Kennedy, B. M. Effect of baking on the nutritive value of proteins in rye bread with and without supplements of nonfat dry milk and of lysine. Cereal Chem. 34: 196-200. 1957.

49. Sure, B. Relative nutritive values of protein in whole wheat and whole rye and effect of amino acid supplements. Jour. Agr. Food Chem. 2: 1108-1110. 1954.

50. Sure, B. Protein quality and supplementation. Relative nutritive values of proteins in foods and supplementary value of amino acids in pearled barley and peanut flour. Jour. Agr. Food Chem. 3: 789-792. 1955.

51. Sure, B. Nutritive value of proteins in buckwheat and their role as supplements to proteins in cereal grains. Jour. Agr. Food Chem. 3: 793-795. 1955.

52. Sure, B., and House, F. The relative biological value of the proteins in cereal grains. Jour. Nutr. 36: 595-600. 1948.

53. Szkilladziowa, W. (Biological value of proteins in rye and wheat flour of different extraction rates, estimated from growth trials.) Rocz. Panstwowego Zakl. Hig. 11: 191-198. 1960.

54. Szkilladziowa, W. (The biological value of protein in rye and wheat flour of different extraction rates estimated by Bender and Miller's method.) Rocz. Panstwowego Zakl. Hig. 11: 295-301. 1960.

55. Szkilladziowa, W. (Nutritive value of rye flour proteins estimated by a growth method with rats given a low level of protein.) Rocz. Panstwowego Zakl. Hig. 12: 563-568. 1961. Nutr. Abst. Rev. 32: 856. 1962.

56. Szkilladziowa, W. (Protein supplementation of rye flours with some other food products.) Rocz. Panstwowego Zakl. Hig. 13: 415-425. 1962. Nutr. Abst. Rev. 33: 428. 1963.

57. Van Wieringen, G. (Biological study of harmful substances occurring in rye.) Nutr. Abst. Rev. 28: 1334. 1958.

58. Wieringa, G. W., and Pol, G. Preliminary remarks on the isolation of a detrimental factor from rye. Biblio. Nutr. et Dieta. 7: 211-220. 1965.

BARLEY

Human Studies

1. Dean, R. F. A. Plant proteins in child feeding. Med. Res. Council Spec. Rpt. Ser. 279, 163 pp. HMSO (London). 1953.

2. Rubner, M. Uber die Gerste als Nahrmaterial. Arch. f. Anat. u. Physiol.-Physiol. Abtlg. Jahr. 1916: 339-350. 1917.

Experimental Animal Studies

3. Arscott, G. H., Hutto, D. C., and Rachapaetayakom, P. Use of barley in high efficiency broiler rations. VII. Pancreatic enlargement in chicks fed barley-containing diets. Poultry Sci. 44: 432-434. 1965.

4. Boas-Fixsen, M. A. The biological value of protein in nutrition. Nutr. Abst. Rev. 4: 447-459. 1935.

5. Bressani, R., Aguirre, A., Elias, L. G., Jarquin, R., and Scrimshaw. N. S. All-vegetable protein mixtures for human feeding. IV. Biological testing of INCAP vegetable mixture Nine in chicks. Jour. Nutr. 74: 209-216. 1961.

6. Dalderup, L. M., Den Hartog, C., and Pol, G. Studies in rats given a barley product mixed up in food. Growth, fertility, stress, intestinal function, longevity. Nutr. et Dieta. 7: 120-135. 1965.

7. Howe, E. E., Jansen, G. R., and Gilfillan, E. W. Amino acid supplementation of cereal grains as related to world food supply. Amer. Jour. Clin. Nutr. 16: 315-320. 1965.

8. Hutchinson, J. B., Moran, T., and Pace, J. The effect of a steam treatment on the feeding value of wheat (and barley meal). Jour. Sci. Food and Agr. 15: 413-417. 1964.

9. Jespersen, J. (Experiment on the biological value of wheat and rye (and barley). Nutr. Abst. Rev. 16: 725. 1947.

10. Jones, D. B. Sex differences in the growth of young rats and survival of adult rats fed protein deficient diets. Jour. Nutr. 44: 465-476. 1951.

11. Jones, D. B., Caldwell, A., and Widness, K. D. Growth-promoting value of the proteins of cereal grains. Jour. Nutr. 35: 639-650. 1948.

12. Kracht, W. (Increasing the biological value of barley protein by supplements of l-lysine hydrochloride for lactating sows.) Arch. Tierernahrung 14: 39-45. 1964.

13. Kuppuswamy, S., Srinivasan, M., and Subrahmanyan, V. Proteins in Foods. Indian Council Med. Res. Spec. Rpt. Ser. 33, 289 pp. 1958. (A compilation of data.)

14. Laporte, P., and Tremolieres, J. Inhibitor action of rice, oats, corn, barley, wheat and rye, and buckwheat flours on certain proteolytic enzymes of pancreas. Comp. Rend. Soc. Biol. 156: 1261-1263. 1962.

15. Li, Tsan-Wen. Biological value of the proteins of barley rice, kaoliang and millet. Chinese Jour. Physiol. 9: 49-58. 1930.

16. McBeath, D. K., Bentley, C. F., Lynch, D. L., and Bowland, J. P. The nutritional value of increased levels of protein resulting from nitrogen fertilization of barley. Canad. Jour. Anim. Sci. 40: 57-66. 1960.

17. McCollum, E. V., Simmonds, N., and Parsons, H. T. Supplementary relationships between the proteins of certain seeds. Jour. Biol. Chem. 37: 155-178. 1919.

18. McCollum, E. V., Simmonds, N., and Parson, H. T. Supplementary protein values in foods. IV. The supplementary relations of cereal grain with cereal grain; legume seed with legume seed; and cereal grain with legume seed; with respect to improvement in the quality of their proteins. Jour. Biol. Chem. 47: 207-234. 1921.

19. McElroy, L. W., Clandinin, D. R., Lobay, W., and Pethybridge, S. I. Nine essential amino acids in pure varieties of wheat, barley, and oats. Jour. Nutr. 37: 329-336. 1949.

20. McGinnis, J., and Moran, E. T. Biological and biochemical basis of improvement in the nutritional value of cereal grains by enzyme supplements. Cereal Sci. Today 10: 583-584; 586 and 600. 1965.

21. Maisin, J., and Pourbaix, Y. Antiblastic factors of alimentary origin (cancer inhibitors). Bul. Assoc. Franc Etude Cancer 29: 223-251. 1940-41.

22. Marais, J. S. C., and Smuts, D. B. The biological value of oats, barley, wheat bran and pollard. Onderstepoort Jour. Vet. Sci. Anim. Ind. 15: 205-210. 1940. Also: Chem. Abst. 36: 126. 1942.

23. Markuze, Z. Biological value of the proteins of certain cereals. Biochem. Jour. 31: 1973-1977. 1937.

24. Mendel, L. B., and Fine, M. S. Studies in nutrition. II. Utilization of the proteins of barley. Jour. Biol. Chem. 10: 339-343. 1911.

25. Munck, L. Physiological trials with laboratory animals to evaluate nutritional values of plant materials in programs for plant breeding and technical research. Qual. Plant Material Veg. 13: 105-118. 1966.

26. Murray, H. C. The biological value of the protein of field pea products with a comparison of several methods used for this determination. Jour. Nutr. 35: 257-267. 1948.

27. Musangi, R. S., Holmes, W., and Jones, J. G. W. Barley supplementation and voluntary feed intake of fattening beef cattle under restricted and unrestricted grazing conditions. Proc. Nutr. Soc. 24: 1-2. 1965.

28. Nehring, K., and Schramm, W. Biological value of the protein of different kinds of barley for growing pigs and the effect of nitrogenous fertilizers. Biedermanns Zentr. B. Tierernahr. 12: 478-500. 1940.

29. Osborne, T. B., and Mendel, L. B. Amino acids in nutrition and growth. Jour. Biol. Chem. 17: 325-349. 1914.

30. Osborne, T. B., and Mendel, L. B. A quantative comparison of casein, lactalbumin and edestin for growth on maintenance. Jour. Biol. Chem. 26: 1-23. 1916.

31. Osborne, T. B., and Mendel, L. B. Nutritive factors in plant tissues. I. The protein factor in the seeds of cereals. Jour. Biol. Chem. 34: 521-535. 1918.

32. Osborne, T. B., and Mendel, L. B. Nutritive value of proteins of barley, oats, rye and wheat kernels. Jour. Biol. Chem. 41: 275-295. 1920.

33. Osborne, T. B., Mendel, L B., and Ferry, E. L. Method of expressing numerically the growth promoting value of protein. Jour. Biol. Chem. 37: 223-229. 1919.

34. Reimer, D., and Meade, R. J. Barley rations for swine. Influence of source and level of dietary protein on rate and efficiency of gain of growing swine. Jour. Anim. Sci. 23: 393-396. 1964.

35. Reimer, D., Meade, R. J., and Grant, R. S. Barley rations for swine. III. Lysine and methionine supplementation: Effects on rate and efficiency of gain, and on carcass characteristics. Jour. Anim. Sci. 23: 404-408. 1964.

36. Soldevila, M., and Meade, R. J. Barley rations for swine. II. The influence of l-lysine and dl-methionine supplementation of barley-soybean meal diets upon rate and efficiency of gain and upon nitrogen retention of growing swine. Jour. Anim. Sci. 23: 397-403. 1964.

37. Steenbock, H., Kent, H. E., and Gross, E. G. The dietary qualities of barley. Jour. Biol. Chem. 35: 61-74. 1918.

38. Sure, B. Protein quality and supplementation. Relative nutritive values of proteins in foods and supplementary value of amino acids in pearled barley and peanut flour. Jour. Agr. Food Chem. 3: 789-792. 1955.

39. Tamura, E., Matsuno, N., and Miizeki, S. The availability of lysine from rice, wheat flour and barley by using the growth of weanling rats. Ann. Rpt. Natl. Inst. Nutr. (Tokyo), pp. 9-10. 1963.

40. Yeo, M., and Chamberlain, A. G. Delayed protein supplementation of barley diets for weanling pigs. Proc. Nutr. Soc. 25: 41. 1966.

BUCKWHEAT

Human Studies

1. Heupke, W. (Utilization of millet and buckwheat.) Deut. Arch. Klin. Med. 176: 32-37. 1933.

Experimental Animal Studies

2. Bressani, R., Aguirre, A., Elias, L. G., Arroyave, R., Jarquin, R., and Scrimshaw, N. S. All-vegetable protein mixture for human feeding. IV. Biological testing of INCAP vegetable mixture Nine in chicks. Jour. Nutr. 74: 209-216. 1961.

3. Bressani, R., Aguirre, A., and Scrimshaw, N. S. All-vegetable protein mixture for human feeding. II. Nutritive value of corn, sorghum, rice and buckwheat substituted for lime-treated corn in INCAP vegetable mixture Eight. Jour. Nutr. 69: 351-355. 1959.

4. Bukin, V. N., and Vodolaszskaya, N. A. (A method of estimating and some data about the quality of protein in food; and their connection with vitaminesation of food.) Biokhimiya 15: 44-51. 1950. Also: Nutr. Abst. Rev. 21: 396. 1951.

5. Chen, C-Y., and Wang, L-C. The nutritive value of buckwheat protein. Natl. Univ. Peiping College Agr. Nutr. Bul. 14: 1725. 1937. Also: Chem. Abst. 31: 4700. 1937.

6. Laporte, P., and Tremolieres, J. Inhibitor action of rice, oats, corn, barley, wheat and rye and buckwheat flours on certain proteolytic enzymes of pancreas. Comp. Rend. Soc. Biol. 156: 1261-1263. 1962. Also: Chem. Abst. 58: 14383. 1963.

7. Markuze, Z. Biological value of the proteins of certain cereals. Biochem. Jour. 31: 1973-1977. 1937.

8. Matsuyama, Y. (Proteins in Fagopyrum esculentum and their nutritive values.) Jour. Chem. Soc. Jap. 44: 369-377. 1923. Also: Chem. Abst. 17: 2732. 1923.

9. Murayama, H. (Cereal powder in nutrition and the amount of nucleic acid in the liver.) Jap. Sci. Rev. Med. Sci. 8: 1984. 1961. Also: Chem. Abst. 59: 15660. 1963.

10. Orru, A. (The food value of sarrasin corn Fagopyrum esculentum (buckwheat). Quad. Nutriz. 7: 1-52. 1940. Also: Nutr. Abst. Rev. 17: 971. 1948.

11. Schmid, G., and Lutz, H. E. W. (Buckwheat poisoning.) Berliner Tierarzt. Wochr. 47: 385. 1931.

12. Squibb, R. L., Wyld, M. K., Scrimshaw, N. S., and Bressani, R. All-vegetable protein mixtures for human feeding. II. Nutritive value of corn, sorghum, rice and buckwheat substituted for lime-treated corn in INCAP vegetable mixture Eight. Jour. Nutr. 69: 351-355. 1959.

13. Sure, B. Protein quality and supplementation. Nutritive value of proteins in buckwheat and their role as supplements to protein in cereal grains. Jour. Agr. Food Chem. 3: 793-795. 1955.

14. Van Wyk, H. P. D., Verbeek, W. A., and Oosthuezen, S. A. Buckwheat in rations for growing pigs. Farming in So. Africa 27: 399. 1952.

15. Wyld, M. K., Squibb, R. L., and Scrimshaw, N. S. Buckwheat as a supplement to all-vegetable protein diets. Food Res. 23: 407-410. 1958.

☆ U. S. GOVERNMENT PRINTING OFFICE : 1968 O - 302-068 (ARS-33)

NATIONAL AGRICULTURAL LIBRARY
1022564548

NATIONAL AGRICULTURAL LIBRARY
1022564548